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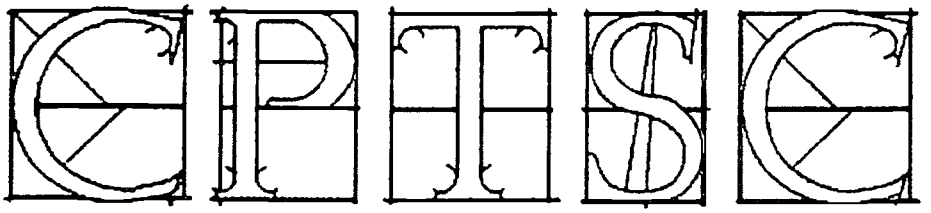
ABSTRACT

This proceedings presents 40 papers delivered at the 1998 annual meeting of the Council for Programs in Technical and Scientific Communication (CPTSC). Papers in the proceedings are divided into sections on the Ecology of Technology; Environmental Shifts; and Evolving Perspectives. Representative papers in the proceedings include: "Mixing Oil and Water: Integrating Writing, Design, and the New Technology" (Neil Kleinman); Distance Learning, Service Learning, and Programs in Technical and Scientific Communication: Finding Common Ground for Program Growth" (Bill Macgregor); "Teaching on the Net: Are We Ready?" (Nancy Allen); "Computer Classroom Practice in Technical Communication" (Stuart Selber); "Using Technical Communication Faculty to Expand the Continuum of Instruction" (Marian Barchilon); "Extending a Hand to Our Stakeholders: Examining the Risks of Service-Learning Courses in Technical Communication Programs" (Roger Munger); "The Job Search Process as a Step toward Career Affiliation" (Pete Praetorius); "The Problem with Certificate Programs" (Sherry Burgus Little); "Anticipating Standard Skills Assessment in Technical Communication Programs" (Ken Price); "A Plea to Make History More a Part of Current Curriculum" (Karen Rossi Schnakenberg); "The Programmatic Challenges That Complicate International Collaboration" (Judith Ramey and Mary Coney); and The 'Greening' of Technical Communication: The Environment as a Programmatic Stakeholder" (Henrietta Nickels Shirk). Appendixes contain the program, distinguished service awards, minutes and treasurer's report, conference participants, and a list of CPTSC members for 1998. (RS)

The Ecology, the Environment, and the Evolution of Technical Communication

Proceedings 1998
25th Annual Conference
Lewes, Delaware



Council for Programs in Technical and Scientific Communication

About CPTSC

Purpose: The Council for Programs in Technical and Scientific Communication was founded in 1973 to (1) promote programs in technical and scientific communication, (2) promote research in technical and scientific communication, (3) develop opportunities for the exchange of ideas and information concerning programs, research, and career opportunities, (4) assist in the development and evaluation of new programs in technical and scientific communication, if requested, and (5) promote exchange of information between this organization and interested parties.

Annual conference: CPTSC holds an annual conference featuring roundtable discussions of position papers submitted by members. The proceedings include the position papers. Authors have the option of developing their papers after the meeting into more detailed versions.

Program reviews: CPTSC offers program reviews. The reviews involve intensive self-study as well as site visits by external reviewers. Information is available at the CPTSC website.

Website: CPTSC maintains a website at http://www.hu.mtu.edu/cptsc/
This site includes the constitution, information on conferences and membership, a forum for discussion of distance education, and other organizational and program information.

Listserv: CPTSC's listserv is CPTSC-L.
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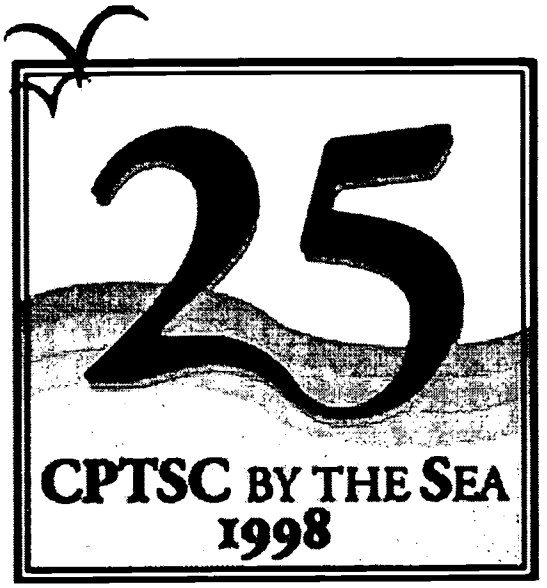
About the 25th Annual Conference

This conference was held at the Virden Center of the University of Delaware in Lewes. The setting in the "first town in the first state," where the Delaware Bay and Atlantic Ocean meet, and where nature trails and bird sanctuaries welcome visitors, inspired the conference theme, "The Ecology, the Environment, and the Evolution of Technical Communication." The setting and 25th anniversary of CPTSC inspired the reference to the meeting as "Silver CPTSC by the Sea."

At the conference, CPTSC presented its first "Distinguished Service Awards," recognizing three people who have offered valued leadership: Tom Pearsall, Virginia Book, and Marilyn Samuels.

Upcoming Conferences

1999: October 14–16, Santa Fe, NM	Host universities:	New Mexico Tech New Mexico State University
2000: October 19–21, Menomonie, WI	Host university:	University of Wisconsin - Stout



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CPTSC

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Appendixes

Exploding Steamboats, Senate Debates, and Technical Reports: The Convergence of Technology, Politics, and Rhetoric in the Steamboat Bill of 1838

R. John Brockmann University of Delaware

A rather sloppy X removed lines seven to twelve in the seven-page S. 1. draft bill considered by the Senate in January 1838. The X occurred in the seventh section of the first bill to be considered in that second session of Congress; a bill tentatively entitled

"To provide for the better security of the lives of passengers on board of vessels propelled in whole or in part by steam."

Dates on the document in the National Archives suggest that the X was placed on the page during a meeting of the Select Senate Committee chaired by the Honorable Felix Grundy of Tennessee.

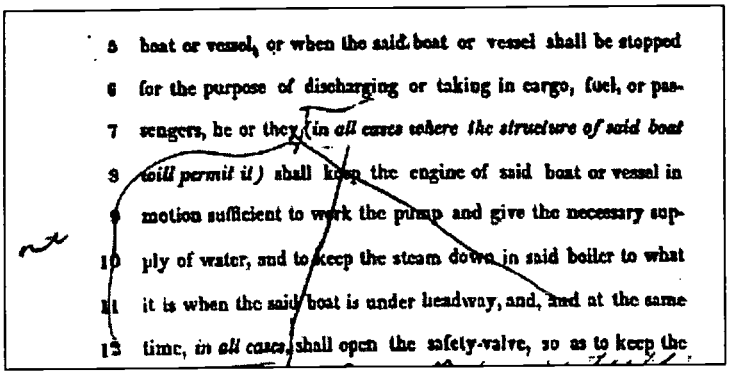
boat or vessel, or when the said boat or vessel shall be stopped
for the purpose of discharging or taking in cargo, fuel, or pas-
sengers, he or they (*in all cases where the structure of said boat
will permit it*) shall keep the engine of said boat or vessel in
motion sufficient to work the pump and give the necessary sup-
ply of water, and to keep the steam down in said boiler to what
it is when the said boat is under headway, and, and at the same
time, *in all cases*, shall open the safety-valve, so as to keep the

Figure 1. The X in Lines 7 to 12 in Section 7 from Draft Bill S. 1., 25th Congress, Second Session, January 9th 1838

The way Senator Grundy handled this S. 1. Bill and worked his Senate Select Committee in 1837 and 1838 was "fast-tracking" indeed. A short twenty-four hours elapsed from the time President Van Buren re-introduced the topic of safety aboard steam vessels in his State of the Union message to Congress on Tuesday December 5th to the time Grundy was able to both frame its legislative language and get the Senate to create a Select Committee to consider the bill on December 6th. Six weeks later, the Select Committee made this X on the draft legislation and sent the amended bill back to the Senate for a vote on Wednesday January 24th.

Note: This short piece is the introduction to my forthcoming book.

In this simple X, three worlds converge. There was certainly the public hysteria that arose from the dozens of lives lost in the explosions of steamboat boilers. These deaths gripped the public attention in the United States for over a decade because Americans were caught in a paradox feeling that steamboats were one of the first technological breakthroughs of the 19th century—a "gift from God"[1]— yet they were also instruments of destruction killing and maiming dozens of passengers and crew. On the very eve of the debate on Senate Bill S. 1., the *Charleston Mercury* editorialized:[2]

We suffer the mighty despotism of steam to roll over us with the cold and grinding regularity of fate, and, shutting our ears to the shrieks of its victims, congratulate ourselves that on the whole we are more powerful, rich, and civilized that could have been without it. The community are [sic] *responsible for the use they make of this power, so vast both for good and evil...*

while far to the west and north, the *Chicago American* chimed in:[3]

Here is another horrid list to be added to the sacrifices of human life, which are not almost constantly occurring on our steamboats. Can or will nothing be done to stay an evil whose frequency and devastation are making it as a pestilence among us?

This paradox of steamship technology reached deep into the American soul surfacing for decades in song, story, and folklore, and the explosions and deaths were repeatedly splashed across the front page of ante-

1. The Rev. James T. Austin in 1839 qt. in Meier, Hugo A. "Technology and Democracy," in *Technology and Change.* John G. Burke and Marshall C. Eakin (eds.) San Francisco: Boyd and Fraser, 1979: 212.

2. *Charleston Mercury* 26 (4328) (November 6, 1837):

3. *Chicago American* August 26, 1837: 3.

bellum newspapers. National politics and attempts to rectify the safety aboard steamboats rose and fell with this hysteria and involved such national figures as Presidents Andrew Jackson and Martin Van Buren and Senators Daniel Webster of Massachusetts, John C. Calhoun of South Carolina, Felix Grundy of Tennessee, and Thomas Benton of Missouri. Attempts to deal with these disasters were made in four separate Congresses.

Also converging in the X on the page of Senate Bill S. 1 was the world of steamboat technology in its earliest decades; after all, the first steamboat on the Western waters, Shreve's *Washington*, had only made its maiden voyage in 1816. Yet, within three decades after the steamboat's appearance in the West, the muddy rivers, the cast iron, the poorly trained engineers, and the mistaken understanding of steam power all combined to create a lethal mixture that killed nearly 3000 people.

Finally, in the inked-X converges the rhetoric of technological persuasion used by a group of nationally reputed scientists at the Franklin Institute in Philadelphia when they produced the first federally funded report to Congress focusing upon a technological catastrophe. The reports on the Three Mile Island catastrophe and the Challenger O-Ring explosion find their fountainhead in this collaborative report managed by the grandson of Benjamin Franklin, Alexander Dallas Bache. Bache's *General Report* was characterized by one eminent historian of antebellum technology, Professor Bruce Sinclair, in the following way:[1]

> *There was no question of the report's theoretical soundness, just as its practical value was obvious. It was also cast in near-perfect form to secure legislative actions.*

However, Professor Sinclair's 1966 analysis of Bache's *General Report* failed to follow the trail of the report once it left the hands of its authors at the mechanic's institute in Philadelphia and was printed and distributed in Washington DC to senators and congressman. Did the *General Report* secure legislative action, or was its message lost in the hysteria surrounding the steamboat explosions such as described in the following letter to the editor during the considerations of the Bill[2]:

> *For some years past our feelings and sympathies have been almost daily wrought upon by the recital of the most shocking and heart-rending accounts of the destruction of human life by the explosion of steam-boilers, and lately these shocking occurrences appear more frequent. If it is in the power of human ingenuity to prevent it, no effort or expense should be spared to effect this most desirable object. The ease and advantages arising from conveyance by steam make it of the first importance that it should be rendered safe. By this kind of conveyance the legislative bodies of our country, and our wives and children, are daily conveyed from one section of the country to another, and from the present state of things, one's mind is in a continual state of distressing doubt whether they will ever meet the friend, the wife, or child, that they part with on board of a steamboat.*

How were the logic, reason, and masterful rhetorical arrangement arising from the collaborative work of the best technological researchers at the time received by a real audience of senators and congressman, steamboat engineers and inspectors, boat owners and passengers in 1837 and 1838? Could the report be understood in a nation simultaneously grappling with the problems of slavery, border disputes with British Canada, and a deep financial depression?

The X created by two strokes of an ink pen in 1838 can be seen and touched today in the National Archives. The question, however, is how does the knowledge of the politics, the technology, and the rhetoric of 1838 touch us today in this first decade of a new millennium.

1. Sinclair, Bruce. *Early Research at the Franklin Institute: The Investigation into the Causes of Steam Boiler Explosions, 1830–1837*. Philadelphia, PA: The Franklin Institute, 1966, 19.

2. Letter to the Editor, *National Intelligencer*. 26 (7923): 7/6/38, p. 3.

Mixing Oil & Water: Writing, Design, and the New Technology

Neil Kleinman

School of Communications Design
The University of Baltimore

For Bill Kinser, a designer who loved reading and writing. He was there at the beginning.

Prologue[1]

Let me start with a story.

Sean Cohen graduated from our master's program in publications design after arriving with an undergraduate degree in painting and English. A man of many talents, he is a writer, graphic designer, and web designer, who also teaches courses in interactive design. The story begins with a phone conversation on the day he started his new job as multimedia specialist at the Hubble Space Telescope Project.

Here is his story in his own words:

Boss: Hi, I see here on your resume that you are a designer.

Sean: Sure, but I code too, uh, you know and I also write. (Screaming inside, "THAT IS WHY YOU HIRED ME!")

Boss: Are you a programmer?

Sean: Well, not really, I do javascript, lingo, etc. I do scripting...not C++ or java coding. I also write the narrative and captions that go with the site.

Boss: (a pause) Are you a programmer or a designer or a writer?

Sean: I like to be in the place where programming, writing, and design meet (using his "I believe in happiness" voice).

Boss: They don't meet.

Sean: I'm sorry?

Boss: They don't meet. That is what I am trying to get from you.

Sean: I am sorry, somehow I am not understanding.

Boss: (sigh) The programmers work on the left side of the building. The designers work on the right. And the writers work in another building altogether.

Sean: Oh.

Boss: They don't meet. We were wondering who to put you with. If you go with the programmers, you'll be in their meetings.

Sean: And if I go with the designers?

Boss: They don't talk to the programmers. They don't meet.

Sean: And if I go with the writers?

Boss: They don't talk to the programmers or the designers.

Sean: Are we talking about who shows up to what meetings?

Boss: Yes. And also where your office will be.

Sean: I get an office?

Boss: No. A cubicle. Sorry. (She actually sounds sorry.)

Sean: Is there any cubicle space in the middle?

Boss: What do you mean?

Sean: Is there any space in the middle, you know, where I could go and talk to programmers OR designers OR writers if I wanted?

Boss: Why would you want that?

Sean: Uhm, heh heh. (He begins to panic.) IS there space in the middle?

Boss: Maybe we should discuss this in person. (She sounds a little miffed.)

Sean: Ok, uh-

Boss: No, we'll just put you in another division, ok?

Sean: Uhmm—

Boss: That's how we will solve this. (And then clipped) Thank you.

So that is how Sean Cohen got to be in his own division.

Note: For this paper, I am in debt to Sean Cohen—both for his story and his disagreements. He reminds me that the integration of words and images is possible—if not now, soon.

1. This paper will also be published in *The Image and the Word,* ed. Nancy Allen. Forthcoming.

Something's Happening

I tell you this story because it explains a great deal about what is happening around us: the changing requirements for jobs and the new experiences, expectations, and talents people bring to their work. The new digital media—first, desktop publishing and, now, web design and digital editing in all media—are re-shaping what we know about writing, reading, and design (Kleinman 30). They are making us rethink how we express ourselves, make our ideas public, and incorporate words, images, action, and sound (Kleinman 51–7).

Is there a place where programming, writing, and design meet? That's not something one would have asked even as recently as five years ago. The nature of our discourse is changing; perhaps in fact, it has already changed. The skills we need to communicate, create, and teach are changing too. Few of us now can work without our computers and word-processing programs, without access to the web for research and the web for classwork and professional work space, and without email to communicate short notes and lengthy essays.

These changes signal more than changes in the tools we use to write. Bit by bit, we are discovering that the new media are changing the way we express ourselves: what we think to say, how we think to say it, and the audience we say it to. We don't limit our public and private narratives to type on paper (Nunberg 133). With that, we must learn a new way of telling stories, as well as learn a new way of reading them. We are able now to write, design, and display ideas using a rich range of media that incorporate sound, image, words, motion, and hypertext links. There is a growing body of literature that exists in electronic space, that was written to fit "naturally" in that environment. It now needs to be read, needs to be understood, and needs to be explained. The problem is that most readers will need to re-think the way they read and need to recreate the way they evaluate what they are reading. What's called for are forms of analysis different from those many of us learned when we were students. We shall all need to get prepared—producers of this new work, teachers, and students alike.

* * * *

New forms of analysis? That seems rather extreme. To understand why it's not, remember the way we were first taught to analyze a poem. After reading "Sir Patrick Spence," the teacher asked what now seems the obvious question: "The poem begins with a scene at the royal court. Does the rest of the poem break up into scenes? What are they?" (Brooks and Warren 14).

The question means little in a world of hypermedia. Where does one find the beginning? It seems to change each time one starts. How does one look for the orderly progression of scenes? Scenes, sections, or phrases emerge often by surprise and not in a regularly predictable pattern. Later when we are asked to study a poet's intention and meaning, we face the same dilemma. Shown two versions of a poem, one an early draft and the other a version that "is approaching the finished form," we're told to "write an account of the development of the poem" (Brooks and Warren 625). The question assumes that we can tease out the author's intent. It assumes, in fact, that there is an author who is in charge.

> For better or for worse, the poet is responsible for his poem. He can always reject any ideas, images, phrases, etc., that come into his head.... And in the end, if a poet feels that a poem doesn't represent him...he can always burn it. His veto is absolute. (Brooks and Warren 610–11)

For the moment, we're asked to weigh in on the side of the author, the rights he has and the powers he's likely to assert. The reader is only a bystander. He can twiddle his thumbs but can do little else since it's the author who must decide that the work is finished and fixed. By the time the reader gets his hands on it, the composition phase is complete. It's only then that the reader's job begins.

What, though, if we were to weigh in on the side of the reader? That is, after all, what hypermedia encourages us to do. "Hypertext...creates an active, even intrusive reader" (Landow 71), a reader who leans across the author's desktop and suggests, just as the work is being "composed," how it might be arranged or changed. Here's a very different attitude towards the author, the reader, and the text itself. Nothing is final. Nothing is fixed, and the author's role is something short of absolute.

What of the teacher's original assignment? *Write an account of the development of the poem?* It is nearly impossible to point to "a finished form" and equally difficult to decide who is responsible for the poem's development. Things have become a lot more fluid.

The requirements of the new media and their effect on the analysis of graphic design are equally apparent. Read for example Jan White's quite good book, *Editing by Design: Word-and-Picture Communication for Editors and Designers.* Writing about how to design to tie facing pages together, White presents an elegantly designed two page spread: on the left, we see a young boy peering through a cut-out in a wall; the boy is looking towards the outer trim of the book. On the right, we find the text which begins with a nicely balanced heading—"Look ahead" (White 27); the heading is positioned to look in a direction opposite to that of the boy's gaze. The rule, we are told, is: "Link facing pages by implication of meaning." This is classic print design advice. Design enhances the story. The facing pages contain and define the words and image; they establish meaning through fixed form, fixed comparisons, and fixed contrasts.

Good print design stops us so we can admire each spread, so we can follow the story that is unfolding as we read. Web design is up to something else: it wants to get the reader to move, to jump from layer to layer, to skip and bounce from one part of the "information structure" to another. It encourages us to navigate easily, quickly, and confidently among levels of information. What can be more different?

A page of print is a container, inviting us to stop awhile so we can appreciate the meaning that's right in front of us. A web page is a "portal," suggesting passage somewhere else. Where that trip leads is not easy to predict since it is not entirely in the hands of the designer or the writer. After all, in hypermedia, the "user" has some authority to decide what's next. He can "choose his...way through the metatext...and...create links between documents written by others" (Landow 71).

What remains of the old aesthetic and the traditional authorities we've normally associated with the roles of author and designer? What aesthetic rules do we have to help us understand how to promote navigation, "readability," and a visual balance that successfully ties dynamic pages? Like their students, many faculty will need to learn a form of analysis that makes sense in this medium.

* * * *

Sometimes, the literature of this new media seems incomprehensible, frustrating, annoying, even downright perverse (Kleinman 31–3). Sometimes, its humor, wit, and surprising connections remind us of ideas and ways of seeing that seem dreamlike and liberating. Perhaps most often, reading work in the new media is exciting because it suggests new ways of saying things that we might try.

First, though, we need to learn how to read all of these visual, verbal and aural messages so we can help ourselves and our students exploit them. Where is Pound's *ABC of Reading* when we need it? Until we have such a book, we shall have to proceed by trial and error. People will learn what they need to learn so that they can do what they must do. As in most enterprises, the aesthetic standard remains a few steps behind the practice.

Sean Cohen can't do the kind of web design that's required of him if he does not know how to design, program, and write.

But once he knows how to design, program, and write, he will find that there are things he can say—things he *wants* to say—that he could not say when he was working only at one level of the "text." At the same time, as he works in a medium that is more accessible to a variety of users, he'll find that what he *wants* to say will change as he recognizes the variety and differences in his audience.

Something Happened

How did we get here? For several generations, literature was read as being the best thoughts, as Alexander Pope explained, "ne'er so well expressed" ("An Essay on Criticism" 298) or, as Matthew Arnold one-hundred and fifty years later proclaimed, "the best that is known and thought" (283). One didn't "teach" literature because that was, to put it simply, what gentlemen read. The book was an extension of culture because it was the language of culture. One learned about literature, especially contemporary literature, in the same way one learned the social graces—by participating in "society."

By the late nineteenth century, it was becoming apparent that there were simply too many books being written and too few men of discernment available to sort out the better ones. What such a proliferation of bad literature might mean for culture was anyone's guess, but some suspected it did not bode well for culture. It argued for critics and for anthologies so that some "authority" might regulate the state of affairs. So explained, Francis Turner Palgrave, whose *Golden Treasury* was the best seller of its time:

> Reading tends to become only another kind of gossip. Everything is to be read, and everything only once; a book is no more a treasure to be kept and studied and known by heart, as the truly charming phrase has it....
>
> Really, the more books, the better possible selection for the readers; but each fills so little time in an age when every one reads, that it is natural to turn to the next on the table. I may notice that this summary process, this inability to read even novelties more than once, leads to a truly mean and miserable false judgment on many books once justly studied and enjoyed. (Palgrave 453)

By the late nineteenth century, it became clear that anthologies by themselves would not suffice, and, early in the twentieth century, Sir Walter Raleigh of Oxford University was named the first professor of English. As he somewhat apologetically explained to a friend,

> If any young man could found a society where people speak only what they think and tell only what they know—in the first words that come to hand—that would be, at last, a school of literature.
>
> But of course we must carry on. Prophets are no good: they get pupils and imitators and start silly fashions. God forgive us all! If I am accused on Judgment day of teaching literature, I shall plead that I never believed in it and that I maintained a wife and children.... (quoted in Kernan, *Death of Literature* 1)

Raleigh was arguing for a new study of literature—the study of "living literature"—which he thought should replace the study of the classics. It seemed rather revolutionary at the time.

What was central to the agenda of Raleigh, Palgrave, Arnold, and Pope was that each—in his own way—emphasized the text, the printed document in which the best thoughts were fixed in literature and then transmitted from one generation to the next. This emphasis was true for succeeding generations and succeeding revolutions. Thus when Brooks and Warren published *Understanding Poetry*, the book that helped to establish New Criticism as *the* literary approach of the 50s and 60s, they explained that the "emphasis should be kept on the poem as a poem" (Brooks and Warren ix).

> ...though one may consider a poem as an instance of historical or ethical documentation, the poem in itself, if literature is to be studied as literature,

> remains finally the object for study. Moreover, even if the interest is in the poem as a historical or ethical document, there is a prior consideration: one must grasp the poem as a literary construct before it can offer any real illumination as a document. (Brooks and Warren iv)

They meant to cut away what they took to be the over-growth of irrelevant commentary, social interpretation, and classical comparisons that had been the contributions of Raleigh, Arnold, and Palgrave, but like them, they also based their criticism on the printed object, the "literary construct," as the thing that should be examined. A new aestheticism? Perhaps. But still it was one that depended upon the same medium that the Victorians built their criticism on. It turns out that it is difficult to build an entirely new edifice when one must use the stones from the last one.

So successively, each generation of teachers of literature has centered its discussions on print-based literature (Kernan, *The Death of Literature* 9, 15; Bolter 153–6). What else might one do since so much of the literary record had been fixed in print for the last five hundred years? It is true, though, that the literary tradition was fraying at the edges—for a number of reasons. The impact of the new media of television, radio, and print advertising was becoming more apparent, as McLuhan and others reminded us, during the '60s and '70s. The tools of a new technology were being taken more seriously as anyone who thumbed through the *Whole Earth Catalog* (1968) was bound to see. And, the "literature of the streets," mediated by television, street pamphlets, and folk music, culminated in the summer of 1968, and moved the 60s generation even further from a text-based literature. At every turn, we were told, or shown, that technology, media, culture, and art—not to mention politics and social change—were connected.

Still, departments of English and literature did not budge. Their curriculum was fixed in the literary approaches of the previous generation. Even post-modern criticism is a print-based discourse, developing analyses of the text, discussing intertextuality using the printed medium, talking about the death of print and print-bound literature even as the post-modern critics used the print medium to publish the obituary (Kernan, *The Death of Literature* 213; Bolter 161–4; Landow 2–7, 30–34). The first hint of change was to come when, as George Landow put it, "critical theorists...have...a new laboratory, in addition to the conventional library of printed texts, in which to test their ideas of critical theory" (3). The laboratory was the personal computer and the software associated with hypertext and hypermedia. For many, the Apple Computer, which became available in 1977, gave them their first chance to see what such a lab might look like although it would be another decade before they heard about hypertext.

Beginning Somewhere

Sometimes beginnings start in the oddest places. In 1978, the University of Baltimore—a small "upper-level" university—started a graduate program that "integrated" writing and design and used, as best it could, some of the early computer-based design and typography systems then available. Looking back, we can rationalize why we created this program: our sense of where things were going, our curiosity, our interest in the ideas of McLuhan, and our desire to "play" with these new forms of expressions.

Many of us also felt a certain degree of powerlessness: no one seemed to care what English teachers had to say; English majors graduated with a depressing lassitude and passivity (who wanted what they knew?); and some of us felt that our writing was too often taken over by designers who shaped it in ways that seemed to make what we wrote unreadable. Like factory workers of the nineteenth century, we only asked to control the means of production. A curriculum that taught writers "how to design," or, at least,

"how to talk to designers" seemed the solution, and a curriculum that taught designers "how to behave" when dealing with words seemed useful.

What was, probably, the most important force to make us take a chance with such a risky curriculum was that we needed to figure out a way of surviving. Issues of survival always have a way of getting one's attention. Because we were an upper-division university, we had no composition and rhetoric courses to justify our existence. And, therefore, we couldn't have been a service program even if we'd wanted to be! Because our university was small and appealed to working class students interested primarily in a practical education, we had few majors. Without students interested in what we taught, there seemed to be little time left before we would dwindle to nothing.

There was good news too. Because we were a small university, we had no art department, communications programs, not even a computer science program, so we had no one to compete with. Like Defoe's Robinson Crusoe, we built our curriculum taking pieces from the debris we found about us. No one stopped us as we created our curriculum in writing and design because no one thought it would work and no one cared.

By the mid-80s, we added video to the mix, and in the mid-90s we added hypermedia, multimedia and, more recently, web design. In 1998, we started a post-master's degree program, a doctorate in communications design that takes up questions of marketing, business development, and entrepreneurship and considers how to develop new publication that take advantage of the new and old media, at the same time that students polish their skills in design, writing, and digital technology.

To absorb all of this, we've grown. Starting in 1978 with a faculty of about eight in a small English department, we now have 17 teaching in the programs offered within, what's now named, the School of Communications Design. This faculty teach in a range of disciplines—creative writing, technical and professional writing, graphic design, videography and radio, communications theory and practice, literary criticism and theory and language analysis, social and economic history, law, electronic publishing, hypermedia and interface design, business practices and marketing. Along with this faculty, the School now has three professionals with significant competence in computer graphics, interface design, computer programming and systems management, and video and audio production. In addition we have three labs—in graphics, video, and hypermedia.

The change has been considerable. Literature and writing faculty now teach with faculty trained in videography, design, hypermedia, and programming. Faculty used to blackboards, typewriters, and pencils now work in an environment of computer labs and video and digital editing suites. Words and images are treated together, and both faculty and students try to learn a language that tries to combine very different aesthetics, assumptions, and values. It appears that we've been able to fashion a place where programming, writing and design do meet.

Telling the Truth and Moving On

It all sounds pretty impressive. The truth is a bit more complicated than the rhetoric. Like so many experimenters, we've managed to build a laboratory, but we've not yet created what we hoped to—an environment in which we integrate word and image, create a new language and a new form of expression, and understand the theory behind this integration. Perhaps there is one simple reason—an explanation that tells us much about the transition we are all going through: as a program, we are still very much influenced by the "print culture" which we grew up in.

Many in our English literature faculty were trained in New Critical theory, and that theory is still embedded in our nervous systems. It reveals itself almost reflexively when we look at a "text." We read and teach the postmoderns. Nevertheless, somewhere in our

literary psyches, many of us still look to the "literary construct" as the object to be studied. Our design faculty are also locked into the print culture. Their design aesthetic has been shaped by 500 years of print and print typography. They too feel a bit uncomfortable when forced to deal with dynamic pages of hypermedia, limited arrays of typographic forms, and an inability to "fix" their design so that they can predict what the "viewer" will see.

Where Do We Go From Here?

Although we've come a long way in the last twenty years, it is important to admit that we still don't have answers to many of the questions. Far from it! In fact, we're only now beginning to learn some of the questions. There are so many questions to deal with, but two of the most important relate to the passionate, often ferocious, interaction between two forms of discourse—the first represented by the way we communicate when we write and the second represented by the way we communicate when we design.

1. Is it possible to integrate the word and the image?

It is unpleasant to admit this, but integrating words and images is a rather subversive act, especially if the images begin to move and the words are both text and sound. W. J. T. Mitchell neatly describes the struggle:

> Among the most interesting and complex versions of this struggle [between word and image] is what might be called the relationship of subversion, in which language or imagery looks into its own heart and finds lurking there its opposite number. One version of this relation has haunted the philosophy of language since the rise of empiricism, the suspicion that beneath words, beneath ideas, the ultimate reference in the mind is the image, the impression of outward experience printed, painted, or reflected in the surface of consciousness. ...
>
> ...[T]he relationship between words and images reflects, within the realm of representation, signification, and communication, the relations we posit between symbols and the world, signs and their meanings. We imagine the gulf between words and images to be as wide as the one between words and things, between (in the largest sense) culture and nature. (43)

Sometimes, the gulf between words and images seems pretty wide and very deep.

Taken together, words and images create an unstable tension between the narrative structure of verbal and visual material. The verbal presents ideas in a time-bound discourse: the reader does not take in information instantly; he must be both patient and curious—sufficiently curious to want to wait to hear the story as it unfolds. The visual is instantly displayed and instantly understood. The viewer takes it all in at one glance and begins to draw conclusions from what she sees. One *feels* the tension between these two when students present their work to be judged. The writers feel unloved and unread. Because it takes so long to appreciate what they've achieved, they are greeted by polite silence. In contrast, the designers receive instant gratification—and applause.

When the two are placed together, the verbal is, too often, at a distinct disadvantage. It does not have sufficient power over the imagination—perhaps because the imagination is fueled by the energy of our dreams which are, for the most part, visual (Freud 347).

If the verbal is almost always overwhelmed by the visual, then why would we want to teach ourselves and our students to "integrate" writing and design? The easy answer is that we have no choice. The new media makes such integration inevitable. Fewer and fewer writers and readers over the next decade or so will be comfortable with text that is merely limited to typographic form. They will insist upon the dynamic of the visual and verbal being connected. (Once the

eye is trained or prepared for this integration it becomes difficult for the eye to return to the rather placid forms of simple text on paper.)

The easy answer to why we've begun to work among these forms, as I've said, is that we had no choice. The hard answer is that this is the time for people who have been trained to think about creative expression, rhetoric, and persuasion to think about the aesthetic that these new media demand. If we don't, who will? The software engineer? The writer lamenting the lost authority she once took for granted? The designer in control of "the work" but timid around declarative statements? If we believe that there are aesthetic values, narrative traditions, and ways of telling stories that we'd like to see continued in the new media, we must learn how to use the media and help to shape it as a creative and humane form of expression.

2. Is it possible for designers, writers, hypermedia designers, and teachers of literature to work together?

The tension between the verbal and the visual repeats itself in the relationship between the commentators or critics and the makers or designers. This tension is reflected, writes Mitchell, in a "compulsion to conceive of the relation between words and images in political terms, as a struggle for territory, a contest of rival ideologies..." (43). He is right. If struggle between word and image is "political," you can only imagine what it must be like between writers and designers. It is difficult to mix those who are committed to the *craft of producing* new work—whether they're designers or writers or poets—with those who find pleasure in *commenting on the work* that others have produced. One finds, as Mitchell predicts, "a struggle for territory and a contest of rival ideologies."

Put simply, the critic analyzes and describes. At its best, her criticism or commentary provides a descriptive overlay that points to an action—the act of making or presenting that which was made. The designer (or the creative writer) makes and presents objects that are more nearly action. Perhaps, in fact, the web designer comes closer to true action when he works in the dynamic, almost mimetic space of the web.

Designers and critics seem to operate in two very different worlds. How can they work in the same department or teach the same students?

If we don't learn how to collaborate in this new media, we will have learned nothing—although the price and pain of collaboration is high. Those who follow "a craft" generally have a low opinion of theorists: how, they wonder, can anyone know what the work means if they can't *do* it? "Oh, yes, they can talk the talk, but can they walk the walk?" On the other side, those who follow theory often see practitioners as blind moles who dig their holes in the earth without a larger sense of purpose and plan. Yes, they say, each piece is good, but *how* will it fit into other work and other purposes? And if it does, *why* and to what end? "Good technique, but nothing to say!"

It is because of the differences between the makers and the commentators, between creators and critics, that there is every reason to struggle to keep them together, talking and making. Like linking Aristoleans and Platonists, one ends up with an education that combines an appreciation of the particular and an understanding of the whole. Again, Professor Mitchell provides part of the answer to why it is important to bring writers and designers together:

> [The struggle between word and image] carries the fundamental contradictions of our culture into the heart of theoretical discourse itself. The point, then, is not to heal the split between words and images, but to see what interests and powers it serves. This view can only be had, of course, from a standpoint which begins with skepticism about the adequacy of any particular theory of the relation of words and images, but which also preserves an intuitive conviction

that there is some difference that is fundamental....

...Perhaps the redemption of the imagination lies in accepting the fact that we create much of our world out of the dialogue between verbal and pictorial representation, and that our task is not to renounce this dialogue in favor of a direct assault on nature but to see that nature already informs both sides of the conversation. (44–6)

The electronic space pushes us to maintain that dialogue and forces us to learn how to appreciate the inevitable struggle between these two forms of discourse. This struggle—a civilized version of combat—is probably impossible to simulate in a classroom if both writers and designers, critics and creators, those committed to print and those engaged in the digital, are not in the classroom together. Who would take seriously an argument in which the two contenders are not present to deliver the blows and receive them in turn?

* * * *

Samuel Johnson, who knew something about writing, reading, and publishing, once remarked that "you can never be wise unless you love reading" (qtd. in Kernan, *Samuel Johnson* 219). Here is a wonderful and curious thought. Certainly it is one worthy of the great dictionary maker, the man who'd read "every" printed book of his time so that he could catalogue and organize their words. But for us now, it would be odd to believe that civilization is based upon the printed word or that knowledge can only come from reading. "We—readers of books ...—are so literate," Walter Ong reminds us, "that it is very difficult for us to conceive of an oral universe of communication or thought except as a variant of a literate universe" (Ong 2).

The question now is: Can we envision a post-literate culture in which knowledge and wisdom emerge from a love of reading, writing, and design that depend less on print and more on new media for expression and meaning? To say that wisdom only comes through reading is to forget the role of Socrates or Homer or others who played their lives out in a pre-literate time. Perhaps we will find wisdom in a "post-literate" culture, one that combines words, images, and sound in a quite different syntax from the one we now use. Until then, we shall need to work to build more places where programming, writing, and design meet.

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Biography

Neil Kleinman writes on law, literature, and the impact of technology on society. A professor of English and Communications Design at the University of Baltimore, he teaches courses on literature, writing, propaganda, and economics. In 1978, he was a principal architect of the master's in publications design and, in 1998, of a proposal for a doctor of communications design. He is director of the doctoral program, director of the Institute for Language, Technology, and Publications Design, and co-director of the School of Communications Design. He has a Ph.D. in English literature from the University of Connecticut and a J.D. from the University of Pennsylvania.

Learning about Distance Learning

A 7:1 Student/Teacher Ratio at a State University? A Virtual Environment in a Technical Writing Course Makes it Possible . . .
Jim Henry, Gwyn McVay, and Ginger Montecino

Distance Learning, Service Learning, and Programs in Technical & Scientific Communication: Finding Common Ground for Program Growth
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Offering Online Graduate Programs in Technical Communication: An Opportunity to Place Technical Communication at the Center of Outreach Programs
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Teaching with the Internet

Teaching on the Net: Are We Ready?
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Getting Involved—The Web Site as a Technical Communication Program Interface
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Constructing Programs

Constructing Communication-Friendly Computing Environments for Our Programs
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Computer Classroom Practice in Technical Communication
Stuart Selber

Helping Students Develop Expertise in Information Design
Karen A. Schriver

A 7:1 Student/Teacher Ratio at a State University? A Virtual Environment in a Technical Writing Course Makes it Possible . . .

Jim Henry George Mason University
Gwyn McVay George Mason University
Ginger Montecino George Mason University

In part because so many courses in technical communication take place in computer labs, technical communication teachers have been among the first to embrace the "decentered" classroom in which the authority for conceptualizing, generating, and evaluating student projects is more dispersed than in "teacher-centered" classrooms. The spontaneous mini-collaborations that take place among students in computer classrooms fuel such decentering to pave the way for broader student collaborations. Yet almost always, teaching assignments and course staffing in our postsecondary institutions are predicated on a one-instructor-per-classroom model inherited from an earlier era in education. Our position is that programs in technical and scientific communication should be imagining and fostering course designs that can draw on the expertise of more than one instructor by incorporating virtual collaborators.

When we consider the dramatic expansion in the epistemologies informing technical communication courses in recent years, the need for multiple course instructors looms all the more compelling. Plural instructors can articulate a range of epistemologies that any one singular instructor would be hard-pressed to articulate. As illustration, we will discuss briefly our collaboration in course design and implementation of an upper-division course in technical and report writing with the theme "Collaborating to Write the Environment."

Virtual collaboration allows course design to draw on the expertise of more than one instructor. Students learn digital publishing and work culture aspects of the digital workplace.

Our collaboration began when Jim, a senior professor who for several years worked as a technical writer in pre-WWW industry and whose research now focuses on applying critical theories of authorship to the interpretation of practicing writers–workplace writing ethnographies, applied for a research assistant to enhance the information technology aspects of his course. Gwyn, a graduating poet in our department's MFA program who as a teenager began coding on her father's Commodore 64, was selected to assist Jim in redesigning his course syllabus. She taught him how to manage asynchronous electronic discussions on the university's WebForum and how to approach and teach PowerPoint to students. Together, they expanded Jim's term project option of a WWW home page from previous years to include collaborative web-based projects focused on the environment, supported by links on the e-syllabus established by Gwyn as part of her research. (Visit http://mason.gmu.edu/~jhenry/eng410.html.)

As they redesigned the syllabus, they recognized the need for enhancing students' critical readings of the WWW as these students would be composing their own projects for this medium. They turned to Ginger, a colleague in the Dean's office of the College of Arts and Sciences and long-time writing instructor in the English Department who was one of the university's pioneers in distance instruction and who now teaches Internet Literacy in New Century College. Says Ginger: Many of us are spending more time during our scholarly/professional work in a digital environment. Some of our students, already in the work force, are being expected to be able to operate in this ever-changing environment. Incorporating the various forms of digital publishing, as well as exposure to various work culture aspects of operating in this environment, are necessary components of a technical and scientific communication curriculum. To best meet the needs of such a curriculum, students need to engage in class activities which give them the opportunity to effectively

engage in professional email and net-meeting discussions. They also need to create and send professional email documents, to work collaboratively online on workplace-type projects, and to publish Web-based documents.

Jim and Gwyn incorporated Ginger into the course by linking an assignment on critical interpretation of the WWW during the second week of the course to Ginger's home page, which includes extensive prompts for such critical interpretations. (Visit http://osf1.gmu.edu/~montecin.) Thus Ginger will be virtually "present" throughout the course as a subject matter expert on online communications and critical uses of digitized environments in technical and scientific settings. Gwyn will be virtually present during the course through the syllabus itself, since she researched valuable URLs and incorporated links to them. Gwyn and Jim have decided, moreover, to allocate some of Gwyn's research time to virtual availability in the fall when the course will take place.

Of course, the "real" student-teacher ratio in this course will remain 22:1. But we hope the contours of our virtual collaboration might spark ideas among other instructors in technical and scientific courses for richer discursive environments that enhance students' critical repertoires as both interpreters and producers in a digitized world.

Distance Learning, Service Learning, and Programs in Technical and Scientific Communication: Finding Common Ground for Program Growth

William Macgregor Montana Tech of the University of Montana

Programs in technical and scientific communication hold a rare advantage in the institutional politics of change in higher education. For one thing, in contrast to many academic disciplines, technical and scientific communications programs seem to thrive on change. For another, the kinds of changes higher education currently faces are a close match for the key descriptors applied to our program mission(s)-turning our colleagues' (and our administrations') eyes to us for institution-level leadership. Universities and colleges run (and sometimes succumb to) the risk of turning into ivory towers of Babel-institutions characterized by the esoteric babble that competes for attention and resources both from within and outside the institution. Not only does the real contest behind this image undermine the institution's ability to function, but the image itself damages the credibility of the institution among its various external constituencies. Technical and scientific communications programs explicitly claim as their domain of skill and knowledge the taming of technological and scientific change, and the transport of technological skill and scientific knowledge from one discipline to another, and from the enclosed laboratories of the initiates to the broader citizenry that depends on both the diversity and the dynamics of knowledge to participate effectively in public life.

Programs in technical and scientific communication have an opportunity and responsibility to exert leadership in both distance learning and service learning.

At Montana Tech of the University of Montana, a small engineering college in a remote area of the Northern Rockies (formerly the Montana School of Mines), a newly established M.S. degree in Technical Communications has offered opportunities to explore ways for the parent department, Professional and Technical Communications, to use its mission to claim some unexpected areas of leadership within the institution, and in relation to the institution's major constituencies. As such, this program's experience, as it evolves, may resonate for other programs within the CPTSC venue that are vying to position themselves to survive, maintain, or grow in an era of institutional downsizing.

Embracing Opposites

By embracing distance learning, technical communication—with its historic use of technological delivery of its own instructional materials, and its use of communication technologies as an essential part of its subject matter—can be recognized as a natural leader for institutional efforts to expand distance learning. On the other hand, by embracing service learning, technical communication—in its tradition of integrating theory and practice among specialized communities (the experiential education thrust)—provides a perfect home for a wide range of service learning efforts of value both to students and to the institution's ability to truly engage with its home community.

I would assert that the most significant development possible for PTC programs in the next decade may be their assertion of ownership of the strange nexus of seemingly opposing "movements": the learning-at-a-distance, technologically mediated, and distinctly careerist thrust of distance education, and the warm-fuzzy, touchy-feely, liberal-artsy, do-gooder thrust of service learning. What more natural ground for the constituents of CPTSC to own and patrol than the hard and unsettling and contradictory Reality that at once accommodates the limitations (and opportunities) of communication mediated through newly available technological channels, and the necessities (and opportunities) of engaging with community constituencies by bringing community-based service

opportunities—which are also, of course, learning opportunities—into the structure of the classroom.

From opposite ends of the spectrum this concept seems to attract immediate (and usually surprised) attention. John Wallace, one of the founding members of The Invisible College (a faculty-based service learning organization), had exactly this reaction when the idea was presented to him. He told me he "was struck also with your analogy with Control Data's Plato project, where they created store-front learning centers where people could access the technologies, and possible adaptations of this for a university presence in low-income communities." He noted that universities have a very explicit role to play in ensuring that distance learning opportunities are not limited to those who can afford to own the delivery technologies. Though Wallace didn't carry his insight into notions of discipline-specific roles, I assert that this is where technical communicators can (and should) assume key leadership.

At the other end of the intersection, the latest rising star on the horizon of distance learning opportunities, the Western Governors University (now going by the name Governors Open University) took "service" as one of its founding principles: to serve an underserved population with higher education opportunities (largely in the remote spaces of the American West). And yet, when (as a member of WGU's Associate of Arts Program Council) I presented the prospect of building service learning into the structure of the degree programs offered by the institution, it seemed to strike the council members, as well as the WGU staffers, not only as a total surprise, but also as exactly the right thing to do. Within the next year, the program council expects to develop and review performance descriptions and program requirements articulating WGU's service learning certification: this strange marriage of remotely delivered instruction and intimately engaged, community-involved learning. The opportunities are ripe for technical communicators to enter through this door—as learners, as researchers, as course developers and deliverers—and to move from here toward community-based service-learning activities.

Programs in technical and scientific communication must assume a more central role in institutions that are attempting to take advantage of the opportunities afforded by these growing trends of distance and service learning. Not to do so sacrifices both opportunities and responsibilities.

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Offering Online Graduate Programs in Technical Communication: An Opportunity to Place Technical Communication at the Center of Outreach Programs

Nancy M. O'Rourke Utah State University

Last year I raised questions about the socio-cultural complications that might arise from a master's degree in technical communication offered only by online distance education, that is, completion of an M.S. with no face-to-face component. I argued that an ideal transactional, dialogic model of technical communication in the classroom would be compromised by lack of the sense of community that an online degree program might disintegrate. I suggested that careful thought and planning is in order before throwing together a program and putting it online.

Following a complete redesign of all our programs as we switch from quarters to semesters in 1998–99, we did prepare an online graduate degree program in technical communication. At Utah State we now have the Board of Regents approval to offer this degree. We also have been teaching some sections of English 101 classes completely online since Winter Quarter of 1995.

This year, I talk about combining a variety of delivery methods that would strengthen such a distance education program and the potential impact that online technical communication programs may have on other outreach programs offered through the internet. Indeed, online technical communication programs could move to the center of other online programs, modeling outreach programs in curriculum development and assessment. Rather than being marginalized, as technical communication is in some universities, our field has great potential in becoming central to not only the departments in which they are housed, but also the higher education institutions at large. This is new territory, only partially explored. However, some literature faculty at Utah State are beginning to offer their courses as a hybrid of face-to-face and interactive online communication, discussions, assignments, and secondary materials, for example, on a course web page designed specifically for and accessible to only that course.

Online technical communication programs could model outreach curricula. Hybrid pedagogies help to establish social and cultural components of courses.

As you aware, my agenda is to ensure that the online classroom preserves the cultural and socially constructive quality that so many of us have struggled to build in our face-to-face classrooms in order to prepare our students for operating efficiently in the work place. In our program design, I believe we have partially achieved that goal by identifying and offering courses as hybrid, face-to face, or totally online.

Teaching on the Net: Are We Ready?

Nancy Allen Eastern Michigan University

A major topic of conversation on networks and in the hallways these days is teaching courses on the net, that is, courses that are conducted over a computerized network rather than in a classroom and for which students earn college credit. Many institutions are conducting selected courses online, and in some cases entire colleges exist as online institutions.

Some Advantages of Teaching on the Net

Typically, teachers seem to be enthusiastic about teaching courses on the net because of the advantages these classes offer for meeting course goals. For example courses taught online:

- Offer students an experience that in some ways simulates the workplace;
- Can be designed to meet individualized student needs;
- Encourage students to work independently but also to communicate with others;
- Put emphasis on students' learning and activity as opposed to on a teacher's talking.

Educational administrators also support teaching courses online. For educational institutions, Internet courses offer:

- A way to compete with corporate or commercially run courses that are already drawing students away from college campuses, a concern teachers and administrators have in common;
- The opportunity to reach students who couldn't otherwise enroll.

Our programs need to prepare now for shifts to Internet teaching so that practices support our program goals. CPTSC is the organization to evaluate the Internet as a teaching environment.

Disadvantages of Teaching on the Net

However, we also read and hear forecasts concerning online courses that sound like warnings, as though this is the latest menace threatening our teaching. Along with the advantages, teachers may be looking at:

- Increased class size. Administrators sometimes believe a teacher can teach many times the number of students per class online that they can handle in a face-to-face classroom. Class size increases translate to salary money saved for participating institutions.
- Diminishing employment opportunities for teaching professionals.
- Dramatic changes in learning and teaching, which entail new learning and teaching methods for teachers.
- Technology that is constantly changing.

Questions We Face

Technical communication is an area that seems particularly suited for teaching on the Internet since students in this major will be doing much of their professional work online. Economic pressures from institutions and demands from the workplace combine to increase the demands for online courses. As technical communication teachers, then, we are faced with questions such as these:

- What sorts of classroom environments will we be expected to use effectively?
- What support will be available for learning about good pedagogy in these environments?
- How soon will these changes become widespread?

- Will a large scale move to online education, in which most or all of the courses in our programs are held online, support our teaching goals or undercut them?
- Does our enthusiasm for teaching with computers open opportunities or does it set us up to shoot ourselves in the foot, wounding our programs and profession?

It's clear, I think, that changes are already occurring and that the trend will grow stronger. What's important for our programs is to prepare now for these shifts, to be proactive, so that positive practices that support our program goals will be the practices that are put in place. And it seems to me that this organization, CPTSC, because of its concern with TC programs, is exactly the one to evaluate the Internet as a teaching environment as thoroughly as possible. We need to establish in what ways online environments will contribute usefully to our programs and for which purposes we need face-to-face environments for particular kinds of learning to take place. Collaborative skills are a case in point. Is face-to-face interaction necessary to successful collaboration or is it simply a romantic remnant of a past time? Do our students, in fact, need both kinds of experiences, face to face and online, to gain the subtle skills that are part of collaboration in and out of the workplace?

I believe that each of these environments is important to our teaching, varying with topic and course goals. I also believe that, no matter which side of the argument we are on, our profession needs to prepare now. I would like to propose that CPTSC lead the way by preparing a position statement and guidelines for online teaching that represent our programs, its teachers, and its students. Though we may not be ready to prepare a statement and guidelines now, we can begin working toward these goals.

Things We Can Do To Prepare

We can begin by developing a discussion and then documents that would:

- Compile our experiences, those already accumulated and more as we proceed.
- Extract insights from our experiences and begin to prepare a position statement and guidelines for Internet courses.
- Define general goals for teaching technical communication courses online.
- Specify goals that will lend themselves well to online courses and those that will not.
- Provide evidence of how a specific environment is necessary to achieving a particular teaching goal.
- Refine our statement and guidelines as we learn more.
- Place our discussion and, eventually, our position statement and guidelines on the CPTSC website as a resource.

On the website our discussion and guidelines can help others in planning courses; a position statement would be supported by evidence from our experience and could be used in discussing needs and plans with administrators.

The classroom is changing. Let's get ready for it.

Getting Involved—The Web Site as a Technical Communication Program Interface

Greg Wickliff University of North Carolina - Charlotte

As a teacher in and now coordinator of the technical/professional writing programs at UNC Charlotte, my students have long had a voice in the evolution of the program—its design, implementation, and evaluation. Since 1991, Deborah Bosley, Meg Morgan, and I have developed an undergraduate minor, a graduate certificate program, and a graduate concentration for M.A.s in English. Through word-of-mouth, internships, brochures, and class projects, we have sought to reach out to new student bases, expanding as we do, the range of media we use to advertise the program. But my students have been effectively involved in program in ways that go beyond advertising and consumerism. They act as a volunteer contract writers for innumerable client-based writing projects. The assemble course portfolios that evolve collaboratively into job-search portfolios. The seek out, complete, and evaluate writing internship experiences each semester. Our program has formally represented itself to students, faculty, and the community through 1) a departmental newsletter (designed, written, and produced by my students), 2) a program brochure developed collaboratively by the faculty with advice from students, and 3) most recently, a World Wide Web site.

The website itself has served effectively as dynamic "interface" for the program, by giving student authors and editors a sense of ownership, of active participation and partnership in the program. An original HTML prototype for the site was designed by student interns. This prototype was in part redesigned and added onto by students enrolled in my publishing and user documentation courses. Their revisions, in turn, were edited by students in my technical editing course. And of course, as faculty supervisor and maintenance person for the site, my own ideas about the design and revision have been incorporated as well. Hoping to use the site to reach outside the circle of current technical communication students and faculty, I have also sought to use the site build faculty consensus about the program within the English Department, by including the site HTML files as products in our ongoing department-wide writing assessment project. In a related effort, I am currently co-authoring a paper on website assessment with another faculty member within the department, but someone outside of the technical writing program itself.

A program web site can give students a voice in the program, build faculty consensus in the department, and serve as a resource for the profession and alumni.

Finally, I, my colleagues, and my students, have sought to design the website in a way that it might be useful for program alumni, for prospective students, and for others in the greater Charlotte technical communication profession. By inviting program alumni to send us URLs that link to their resumes, by listing their email addresses, by posting job and internship notices online, and by including links to other technical communication resources locally and across the globe, we hope to make the site a first choice for area professionals performing research in and about technical communication.

In short, a dynamic and evolving technical communication program website can and should do much more than advertise course listings. The design of the site itself should be viewed a point of inquiry for writing and editing classroom projects, for usability testing, for student interns, for faculty both within and beyond the program, and for technical communication professionals at large.

Reflections on Course Design: Challenges of the Web

Harriet A. Wilkins IUPUI, School of Engineering and Technology and School of Liberal Arts

When my colleagues and I talk about distributed course delivery via the web, we are usually enthusiastic and full of positive expectations. We talk about better serving the busy, working students who are the majority in our pre-professional technical writing classes by making it possible for them to work at times that fit into their lives rather than requiring that they come to the university on a set schedule. We talk about the possibilities for individualization and for students' selecting aspects of the course that are particularly relevant for them. We talk about new student populations that we might be able to reach. We talk about the approval we will receive from administrators who are advocating such courses.

But when we actually began to redesign one of our courses for web delivery, we discovered that working in the new medium means loss as well as gain. For us, it means the loss of the basic principle of course design that has guided our work for a dozen years or so. For us, it means giving up a course design that places student cases at the center of coursework, a course design in which students' sharing of circumstances and rhetorical strategies and works in progress is the major activity of almost every class session. For us, it means a shift in the balance of authority among student, instructor, and textbook.

Onsite course design places student cases at the center of coursework. Ways to achieve shared projects and the complex reasoning of workplace cases are still being explored.

Several sources of ideas guided our development of our current course design in the 1980s. Work in composition studies (e.g., Emig; Gere) helped us see the importance of collaboration in writing. The advice of J.C. Mathes and Dwight Stevenson, the authors of the textbook we use for our engineering students, helped us focus course content on rhetorical principles and student projects on topics of their own choosing. Studies in everyday cognition and situated learning (e.g., Lave; Rogoff and Lave) convinced us that in order to help our students begin to become effective writers in workplaces we should use methods of "cognitive apprenticeship" to "...enculturate [them] into authentic practices through activity and social interaction..." (Brown, Collins, and Duguid 37).

Thus, for both rhetorical and pedagogical reasons, the context for writing, the situations within which workplace writing occurs, is the frame for class discussion and activity surrounding student projects. In our technical writing classrooms, students share information with each other about the real (or simulated) circumstances for their documents and offer advice to one another about their developing texts. This conversation takes many forms: instructor-directed whole-class discussion of student cases, small group discussion of particular issues about student cases, role-playing by students of the audiences for a classmate's report, guided student oral or written responses to drafts of other students' work. The "content" of technical writing—identifying and analyzing audiences, selecting and arranging information, designing effective layouts, choosing appropriate language, revising to meet reader needs and expectations—is never considered in isolation from developing projects. One might say the question is always the same: Will this text work for these people in this context? In a variety of ways, students help one another answer this question about their developing texts.

One of the benefits of this course design is that students build a collection of stories about writing situations, most of them based on the real experiences of their class colleagues, to serve as the basis of their knowledge of workplace writing. By the time they

have completed the course, they have more than their own set of experiences in developing documents for particular circumstances and audiences (three to five, depending on the course); they also have vicarious knowledge of another twenty or so cases with which their class colleagues were dealing. These cases and their colleagues' efforts to prepare effective documents for those circumstances become the narrative base—the war stories—for their own developing knowledge. Their knowledge about technical writing, about both the processes and the products, is thus grounded in their own experience and that of their class colleagues. As grounded and situated, as a set of stories of actual circumstances, their knowledge of technical writing is flexible and can continue to grow as their base of experience expands; it is not based on a set of principles abstracted from actual experience.

In technical writing classrooms built on this design, authority is distributed among students, instructor, and textbook. Students are the authorities on the circumstances, the people, the purposes, the content for their documents. The instructor's authority is that of a more experienced practitioner who knows more questions to ask about situations and audiences and intentions and information. The instructor and the textbook are authorities on conventional practices and typical ways to solve rhetorical and design issues.

In an electronic context, however, much of our current classroom activity is inappropriate, if not impossible. On a listserv or conference, even one with membership restricted to members of the class, we cannot ask students to talk about situations in either their current or past places of employment: another participant might print out the conversation, and it would no longer be confidential. In the classroom, on the other hand, talk is transitory and not recorded. We do not consider it safe to ask students to post drafts of documents about organizational issues to a communal address, even to a class address with limited access: even if students were extremely careful to hide company identities and information, they would not control the written record. In class, students lose control of their written document only when they turn it into an instructor; if they make errors in judgment about using proprietary information or failing to mask corporate identities and audience names adequately, they are protected by the instructor's commitment to discretion.

Despite the loss, we are moving ahead with design of a distributed, web-delivered course. For our first effort, we have selected a junior/senior level introductory tech writing course required for majors in computer science and accepted as an upper-level composition selective in other sciences. Many of these students, we reasoned, would be proficient with and positively disposed to computer technology. Because they are experienced at the university, they would have less need to participate in a supportive learning community than students earlier in their academic careers. We have a design team: the main designer, a member of the university's computer support unit with experience and expertise in web design who is an adjunct member of the technical communications faculty and an experienced teacher of other technical communications courses; two part-time instructors who have taught this course in the past, both of whom are practicing technical writers; and myself, the coordinator of the program and the primary designer of the current course. In addition, we have technical support resources from the university's technical support unit and the support unit of the School of Engineering and Technology, as well as a model course framework developed by university computer specialists.

We are using a modular design, with some required modules and others from which students can select to meet their particular interests and needs. We will use some instructor-developed, properly sanitized cases as the basis for class discussions, but limit the

demand for such discussions so that we will not lose the advantages of individualized pacing and ordering of topics possible with web-delivered instruction. We will create the opportunity for some shared projects so that students can learn to work together without face-to-face contact.

Perhaps the possibilities for individualized learning in an electronic environment will justify the loss of talk and community building in our regular classes. Because of the perception of intimacy that some people experience in an electronic environment, perhaps a mentoring relationship will emerge between instructor and student. Because students will not see competition for the instructor's attention, which is often present in regular classrooms, perhaps they will experience the learning situation as more devoted to their individual needs and will, in fact, get more of their instructor's attention (Hartman, et al., 105).

And perhaps the decontextualized environment of the computer screen is precisely the context for writing and document development within which students need to learn to operate in order to survive in the computer-dominated world of twenty-first century corporations. In fact, the decontextualized computer screen may be the proper place to situate the knowledge students should acquire in this course.

Nevertheless, we expect that the constraints of the medium will require the use of well-defined problems and formal patterns of reasoning—features associated with school-learning—rather than the fuzzy problems and reasoning based on experience and stories that are characteristic of workplaces (Brown, Collins, and Duguid 35). We've not yet figured out how to justify this aspect of the course design either to ourselves or to our students.

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Constructing Communication-Friendly Computing Environments for Our Programs

Don Payne Iowa State University

One of the increasingly important ways that technical and scientific communication programs articulate with an institutional infrastructure is through its computing facilities. Such articulation seems natural, even inevitable, for our field. Yet for those programs housed in English departments, stereotypes about the broader discipline of English studies and about the humanities in general still linger in institutional memory and often limit access to computing facilities and funding. When we don our critical hats, of course, we accept and encourage such stereotypes, advertising our expertise at deconstructing the technological environments of the workplace. When we don our funding hats, however, we want our colleges and universities to see computers as fundamental communication tools. The computer lab increasingly shapes our communication environments as surely as the experimental lab shapes the instructional and research lives of our colleagues in the pure and applied sciences. So ultimately we want to don our executive hats and participate fully in the infrastructure decisions.

To the degree that the Iowa State University English Department has succeeded in constructing a communication-friendly computing environment within the institution, it has done so with the following formula evolved over the past decade and a half:

- **An Entrepreneurial Spirit:** We have volunteered for pilot projects, software beta testing, networking experimentation, and computer-based training programs. We have braved the chaotic periods of innovation, trading a cooperative and adventuresome spirit (or was that foolhardiness?) for the bruised expertise of experience.
- **Citizenship in High Places:** We identified key decision-making committees at the college and university levels and targeted able faculty to serve on those committees, adding a consistent humanistic face to the technological visions, large and small.
- **Leveraging Small Grants:** We have pursued departmentally and individually grants with computing components, establishing a string of visible successes, pyramiding bits and pieces into steady technological growth.
- **A Town-Crier Mentality:** We have mapped a technological future realistic to our programmatic missions and expertise, then couched it in concrete details. We stand ready on any occasion from formal departmental review to the latest ad hoc committee to outline our needs and our strategic plans, to admit our problems and pose our considered solutions.

Such strategies, along with a solid dose of serendipity, have molded a computing environment that's never what we want it to be, but that's solid, evolving, and built on the presumption that professional communicators play a primary role.

But to what degree are such strategies generic? What can we generalize about the struggles in our individual programs to shape computing environments institutionally? Where in our varied histories can we find the practical wisdom to position us technologically for the next century?

Programs can shape their institutional identity and computing environments by strategic participation in university decision making.

Evolving with Technology: Software Proficiency as a Programmatic Concern

Shelby L. Rosiak

For many types of documents, software proficiency has become inextricably connected with professional writing. Software is no longer just a tool to create professional documents, but is a job skill within itself. Programs are becoming more specialized and capable of performing more complex functions with each new version. Those who wish to stay current with technology are forced to learn an increasing number of programs.

This raises pedagogical issues in technical communication. While the primary concern of a technical communication program is to teach writing skills and rhetorical strategies, if we fail to address software proficiency concerns, then we fail to evolve with the industry and risk becoming obsolete. Conversely, we should not allow industry to dictate our curriculum.

To what extent and in what manner do we need to integrate software proficiency into technical communication programs? What are the potential benefits and ramifications to:

- teaching software programs as part of our technical writing courses?
- requiring students to take courses in software programs from computer science departments?
- putting the responsibility on students to learn the programs on their own?
- coordinating workshops from computer services or the computer science department on specific software programs?
- working with other departments to create an interdisciplinary certification in software proficiency?

Students need software proficiency as well as writing skills. There are several options for developing that proficiency without compromising other pedagogical goals.

Computer Classroom Practica in Technical Communication

Stuart Selber Penn State University

One environment conducive to excellent technical and scientific communication programs is computer classrooms, yet these spaces are often not used to their fullest pedagogical potential. Although the field has discussed at great length how computer classrooms should be designed and operated, we rarely see how these spaces might be used for the professionalization of our students beyond the obvious: learning computer software and hardware.

This presentation argues that technical communication programs should offer computer classroom practica when computer classrooms and labs are being created or updated. Such practica include students in all levels of planning, designing, and testing computer classroom spaces, exposing students not only to the purchasing decisions that must be made to support pedagogical goals, but to thorny university politics, administrative issues, and purchasing procedures. In this way, the academic workplace can model for students the kinds of challenges, complications, and constraints they face in the corporate workplace.

This presentation provides a rationale for computer classroom practica and an overview of how such practica might be designed to meet the needs of students at both the graduate and undergraduate level.

Involving students in planning, designing, and testing computer classroom spaces promotes their professional development.

Helping Students Develop Expertise in Information Design

Karen A. Schriver KSA, Document Design & Research

Common wisdom would suggest that the longer a person does a job, the better he or she becomes at doing it. But common wisdom may be wrong. Unfortunately, years of on-the-job experience may not translate into excellence in the workplace. Research suggests that only some people improve their performance over time and that only a few go on to become expert in their field. Others tend to rehearse the same mediocre strategies for years and years. Investigations of the nature of expertise suggest that there are specific things that experts do in carrying out their professional activities, whether they are machinists or musicians. In this talk, I will suggest that information designers need to take stock of their developing expertise and that educators in information design need to find ways to help nurture the developing expertise of their students. I argue that developing a theory of expertise in information design is important because the knowledge, skills, and sensitivities that information designers need have been changing and will continue to do so. Information designers must now perform a high wire act in which they develop communication products that orchestrate text, graphics, animation, audio, and video. In the talk I will characterize some of the things that experts do and show how these things might stimulate ideas for pedagogy in information design.

A theory of expertise could identify the strategies experts use to improve their performance.

Environmental Shifts

Crossing University Boundaries

Using Technical Communication to Expand the Continuum of Instruction
Marian Barchilon

Boundary Breakers: Cross-Department/Cross-College Program Development
Rebecca Burnett

Challenges in Teaching Communication Skills within an Engineering Curriculum
Sook Fun Lim

Toward Symbiosis between Engineering and Technical Writing
Summer Smith

Examining Service Learning

Making the "Invisible Discourse" of Service Visible
James M. Dubinsky

Extending a Hand to Our Stakeholders: Examining the Risks of Service-Learning Courses in Technical Communication Programs
Roger Munger

A Political Ecology of Service in Technical Communication Programs
William J. Williamson

Working with Community Stakeholders

Embedding Industry Documents in Technical Communication Programs
Lisa Daidone, Julie Dyke

Do We Have a Community Here? The Stakeholder Ecology of Technical Communication Programs, Related Industries, and Their Legal Departments
Bruce Maylath

The Job Search Process as a Step toward Career Affiliation
Pete Praetorius

What is Keeping Practitioners and Academics from Meeting in the Middle?
Dale Sullivan

Swimming in Other Waters

Charting an Evolutionary Path for Certificate Programs
Lu Rehling

Swimming with the Bottom Feeders: Life, Times and Disciplinary Isolation of the Two-Year College Technical Communication Program
Katherine Staples

Program Ecology, Program Diversity, Program Change
Mike Keene

The Problem with Certificate Programs
Sherry Burgus Little

Using Technical Communication to Expand the Continuum of Instruction

Marian Barchilon Arizona State University

In today's universities and community colleges, we see a continuum of instruction that is influenced by technology. Traditional classrooms still exist at one end, but now we are also seeing a full range of instruction that incorporates some technology, the Internet, and finally, asynchronous distance learning.

As technical communicators, we accept this continuum because we have embraced technology. However, any of our non-technical colleagues are uncomfortable with this increasing emphasis on technology and are reluctant to leave the traditional classroom.

This reluctance can present technical communication faculty with opportunities for success. Given our areas of expertise, we can help our colleagues understand the valuable place of technology within the realm of instruction. Because of our interdisciplinary, audience-centered backgrounds and our training in such areas as instructional and information design, we can shift the focus away from using technical wizardry to employing design principles and the flexibility of the Web to enhance learning. Thus, this position paper asserts we can once again bridge the technological gap by using audience-centered approaches.

Developing Online Courses

During the academic year 1997–1998, I was engaged in a sabbatical project that involved developing 1) a methodology for future online courses and 2) one new technical communication course for ASU's newest campus, ASU East. The scope of my activities involved determining project objectives, determining ways to achieve the project objectives, conducting research in the appropriate fields, developing deliverables, providing recommendations that were based on research and experience, and determining future contributions.

Technical communication faculty have an opportunity to help colleagues use technology in instruction according to audience-centered approaches

During the course of the project, it became clear to me that my expertise in technical communication held great value in the distance learning environment. By becoming engaged in research and self-study in such areas as online communication, information design, instructional design, and instructional technology, I had the opportunity to develop a broad understanding of distance learning from the unique perspective of a user-centered technical communicator. As I began my journey examining numerous faculty web sites, it was obvious that many educators gave little attention to the rhetorical and usability issues we deem so important. Further, through my discussions and observations, it was also clear that many educators have little or no hope of using distance learning because they fear the technology or may have other barriers such as culture, lifestyles, learning styles, paradigms, and comfort zones (see Wilson and Ryder et al.).

At the conclusion of my sabbatical, I decided that I could help my non-technical colleagues by proposing a workshop called "Do I have to be a Computer Nerd to Do This?: Web Course Design for Non-techies." This workshop, which I plan to offer through the Center for Learning and Teaching Excellence at Arizona State University, will introduce colleagues to the principles of web-course design from the perspective of a technical communicator. The workshop will deemphasize technical wizardry and help scholars to rethink how they organize and prepare the information they present. My hope is that this emphasis will provide colleagues with the tools they need to bring distance learning to their respective non-technical fields.

Distance Learning

According to my research on distance learning, there is a continuum of instruction that ranges from the traditional classroom, to the technology-enhanced classroom, to Internet-based instruction, to asynchronous instruction (my course). The criteria for developing a good distance learning course are still being developed, given the fact that there are a variety of issues, including the technology, that one must consider. From my perspective, I examined criteria in four broad areas: distance learning programs, educational delivery systems, academic web pages, and online systems. In my opinion, these areas covered the main technical and non-technical issues that had to be considered in course design.

My Online Course

In an attempt to meet these criteria, I developed a model online course located at http://www.public.asu.edu/~atmgb that employs the methodology I developed, which is documented in a report submitted recently to my Dean and Provost.

Although I am now in the process of making changes based on university guidelines, I intend to work with the staff at Distance Learning Technology so they understand and maintain the methodology involved in my course design.

Conclusion

I see promise that my research in the areas mentioned will help colleagues leave the traditional classroom to move farther along on the continuum of instruction. Further, from a broader perspective, I believe technical communication faculty can bridge the technological gap with our colleagues. Given our audience-centered approaches, our backgrounds in usability, and our interests in instructional and information design, I envision a future emphasizing our work in this important and growing educational area.

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Boundary Breakers: Cross-Department/Cross-College Program Development

Rebecca Burnett Iowa State University

At Iowa State University, the Department of English (in the College of Liberal Arts & Sciences) and the Department of Agronomy (in the College of Agriculture) have coordinated pedagogical and political efforts to integrate two junior-senior level courses: *English 309 Report and Proposal Writing* and *Agronomy 356 Soil, Fertilizer, and Water Management.* Running parallel to the integrated courses is a research component.

Integrated Course Component of the Learning Community Team

The integration of these two courses is part of two major Iowa State University initiatives:

AgComm, the communication-across-the-curriculum program in the College of Agriculture, a program that has approximately 200 communication-intensive courses, actively supported by an ongoing faculty development program

Learning communities, a university initiative that includes the development of linked and integrated courses

In this cross-disciplinary, cross-college, team-taught, upper-level learning community, all the students in Agronomy 356 were enrolled in the same section of English 309 and vice versa. The collaborative primary project in 356 also served as the primary communication project in 309. The students worked with an external client who provided a site for inquiry (in this case, a diversified farm that has livestock as well as row crops). The students worked collaboratively on 3- or 4-person teams to complete a semester-long project in which they identified the client's problems, assessed his needs, researched the situation, posed possible solutions, and recommended solutions that were agronomically sound, environmentally responsible, socially acceptable, and economically feasible. Students gave project-related oral presentations in both courses. A substantial portion of the student writing was evaluated by both agronomy and English instructors.

The learning community formed by English 309 and Agronomy 356 was cooperatively planned and taught. The instructors planned the integration throughout the previous summer and met weekly throughout the semester to implement and adjust the integration plan. They worked closely together—sharing classroom space, class time, and lab time; developing common contexts and strategies; reinforcing each other's activities and assignments. The English course focused primarily on communication principles and practices—that is, identifying and organizing effective proposals and recommendations for problems in complex contexts. The agronomy course focused primarily on agronomic principles and practices—that is, recommending ways to manage the land's nutrients, pests, drainage, tillage, and crops. In practice, however, the collaboration of the instructors and the logical intersections of the content formed a fertile community for student learning.

Research Component of the Learning Community Team

Running parallel to the integrated courses was a research component. The researchers on the team conducted classroom-based research and working cooperatively with the teachers as they refined their course design and pedagogical approaches. Researchers used both quantitative and qualitative methodologies that enabled them to explore these areas:

- *attitudes* including perceptions, expectations, and involvement
- *processes* including problem-solving; collaborating; planning, drafting, and revising; and presenting
- *performances* including document quality, self-assessment, assignment and course grades, external client feedback, and department outcomes assessment

During the Fall 1998 semester, the researchers collected data from Agronomy 356/English 309 students, faculty, and client. The preliminary perception results indicate students believed that they increased the frequency of revision, increased their preparation for team meetings, increased their active participation in discussions, increased their willingness to pose alternatives to avoid groupthink, increased their problem-solving skills, and increased their active listening.

Acknowledgement

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Challenges in Teaching Communication Skills within an Engineering Curriculum

Sook Fun Lim Nanyang Technological University

Engineering education expectations for the twenty-first century have been documented in the new accreditation guidelines by ABET entitled "Engineering Criteria 2000." These guidelines reflect changes and needs in the formation of engineering graduates, and they are anticipated to have impact on international accreditation systems.

Engineering programs must demonstrate that their graduates have a list of skills, including "an ability to communicate effectively." Communication skills training in engineering programs is not a new phenomenon. Nevertheless, the endorsement of such programs by university accreditation bodies facilitates a more integrated approach towards developing communication skills.

Not many universities in Asia integrate technical and professional communication into their already crowded engineering curricula. At Nanyang Technological University (NTU), the communication skills program has existed for over a decade, but new emphasis is being placed on integrated instruction within the School of Mechanical and Production Engineering (MPE). The expectation that engineering students are proficient after completing General Certificate Examinations (GCE) "A" Levels or first-year humanities requirements is shifting to the presumption that additional communication course work is necessary and might be offered optimally as integrated programs within the engineering curriculum. At NTU, the program started with a professional communication course and then included the English Proficiency course and the English Qualifying Test. In the early 1990s, it incorporated the technical communication course for all three engineering schools.

At Nanyang Technological University, integrating communication instruction into the engineering curriculum provides an optimal way to meet ABET standards.

The integration of technical and professional communication training into the engineering curriculum has been a gradual process rather then a shift. It started with conversations across multidisciplinary areas. Newly developed areas are an optional course taught by communication staff as well as by an engineer in MPE, and communication skills staff are involved in the in-house practical training committee. Revision of curriculum, revision of report and thesis writing guidelines, collaborative efforts in joint programs, forums organized by communication skills staff, as well as integration of communication skills practice in engineering courses are examples of integrated efforts in moving towards a more coherent approach of communication skills training.

Training our engineering students in critical thinking and communication skills will continue. This will benefit industry where engineers are expected to communicate effectively within their profession and also to a wider range of audiences in the global market place. In a paper "Singaporean Engineers Communicate" presented at the 1993 meeting of the Conference on College Composition and Communication, Tom Estad and Michael Ferrymen discussed a survey of Singaporean engineers. The study made it clear that the ability to communicate is central to their careers. Ninety percent of respondents to the survey said the writing they do and the ability to write effectively is very or very critically important to their present positions.

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Toward Symbiosis between Engineering and Technical Writing

Summer Smith Penn State University

Engineering students do not learn about technical writing solely from technical writing teachers. They also learn from engineering teachers, who have their own, experience-based knowledge about writing. We assume that this knowledge is somewhat different from the knowledge of technical writing teachers because it is formed within a different discourse community. This assumed difference in knowledge leads some engineering students to believe that the English department's technical writing course is irrelevant or at least unrealistic. It also causes some engineering teachers to harbor expectations for the technical writing course that do not match the expectations of the English department, most notoriously in the area of grammar. And it causes some technical writing teachers to question their own authority to teach technical writing or, at the other extreme, to perceive engineering students and teachers as misguided and in need of conversion. In the midst of these assumptions and concerns, however, technical writing teachers and engineering teachers rarely exchange ideas about writing. When they do meet, their exchanges often consist of much talking and little listening.

We need true dialogue between the technical writing and engineering teachers at our colleges and universities. Recognizing the need, I and a group of technical writing teachers founded the Leonhard Center Technical Writing Initiative at Penn State four years ago. Our group is dedicated to promoting an organized, forward-moving dialogue between writing teachers and technical professionals. We are funded by an education think-tank (the Leonhard Center) in the College of Engineering, and our annual membership includes about ten rhetoric and literature graduate students (all of whom are technical writing teachers). The financial rewards are small but we are allowed to make our own decisions; most members stay on because of the satisfaction that comes from implementing the programs they develop.

Guest speakers, commissioned assignments, and linked classes enhance dialogue between writing and engineering teachers at Penn State University.

Our programs integrate dialogue between engineers and writing teachers into services that help writing teachers design and conduct technical writing courses. For example, our guest speaker program brings engineering professors and practicing engineers into the writing classroom to discuss their first-hand experiences with writing. Before the speaker visits the class, we treat the speaker and writing teacher to a lunch hosted by an Initiative member who facilitates discussion about views of writing. These lunches often help break down the teachers' and engineers' stereotypes of each other, and usually give each participant his or her first contact in the other department.

Our commissioned assignment program allows students to write texts needed by local technical agencies and businesses. Initiative members solicit writing projects from businesses and then work with business representatives and writing teachers to refine the assignments and to develop criteria for evaluating the students' work. In the process, the writing teachers and technical professionals negotiate differences between their understandings of the types of writing students should be practicing, the appropriate standards for evaluating writing, and so forth.

Our third program, which involves the most intensive dialogue, links a technical writing and an engineering class, integrating the assignments and discussions. The first linked class will be taught in spring 1999 by an engineering teacher and a writing teacher, who are working closely to develop lessons, assignments, and evaluation criteria.

I urge technical writing program directors to start similar initiatives at other universities. The Leonhard Center Technical Writing Initiative has opened a dialogue among writing teachers, engineering teachers, and technical professionals at Penn State. We are slowly breaking down misconceptions by learning about the diversity of opinions within both the technical writing community and the engineering community, about the roots of some of our disagreements in misunderstood jargon and stereotype, and about the distance that we have yet to travel in order to achieve a symbiotic relationship. To implement such a program and keep it running, however, we must address questions such as: How can we promote dialogue that is based not in a desire to enlighten the unenlightened but in a desire to find common ground and raise awareness of other views? And when raising awareness is not enough, how do we decide which views of writing should be accepted and taught in our technical writing classes?

Making the "Invisible Discourse" of Service Visible

Jim Dubinsky Virginia Tech University

In the past five years, there have been many attempts to define who we are, what we do, for whom, and why (e.g., Sullivan and Porter; Blyler; Forman; and Allen). All of these attempts to lay out a geography of our field(s), map their boundaries, and build bridges have been instrumental in the emerging identity of Technical and Scientific Communication.

One of the most important points in this discussion about identity has been the realization that to create a field of our own, we need to create our own major, one that will be independent and not subordinate. Sullivan and Porter explain:

> In conceiving of writing as a *major*, professional writing breaks with the dominant *service* identity assigned to composition. The development of professional writing as an academic entity signals a key conceptual shift: from the traditional notion of writing as ancillary to some other subject matter (i.e., writing as service to some other set of concerns—whether business, engineering, literature, or rhetoric/composition) to a recognition of writing as a discipline in its own right (i.e., a view that sees writing itself as a specialty area and as a subject of study). (405–06)

As they make a claim for professional writing's independence, Sullivan and Porter highlight "*service*" as one of the essential terms in the discussion.[1] They link it to "the traditional notion of writing as ancillary to some other subject matter" and recognize that, for the most part, those of us who teach writing have been and continue to be marginalized (and to marginalize ourselves) because of connotations and history associated with *service.*

We need not hide our relationship with service in order to claim disciplinarity. But we need to rediscover the positive meaning of "service" in the social contexts of literacy.

Yet, even as Sullivan and Porter long to "break with . . . the dominant *service* identity" in order to get us to change our collective clothes, so to speak, and put on the mantle of respectability (which for them is associated with research), they recognize that what we do, at least to some extent, is indeed *service.* They explain that even with *writing* as a major, English majors "can continue their service functions and continue to be seen in that service role by some in the university" (406). I understand their ambivalence; I think most writing teachers do.

In this talk, my intention is not to argue with Porter and Sullivan's goal of achieving disciplinary status. I believe writing should be a discipline in its own right and a "subject of study." I disagree, however, that we need to "break with the dominant *service* identity" in order to accomplish those objectives. For that reason, I am beginning an inquiry into the concept of "*service*," a word many members of the profession of English language studies seem to want to keep hidden away like Rochester's wife in *Jane Eyre.* My goals include an examination of some of the negative and positive connotations of the term when it is used as a modifier, such as those associated with being a "*service* discipline" and with the pedagogy of "*service* learning." I want to suggest that we in the field of technical and scientific communication, particularly those members of CPTSC, because of its focus on program formation and definition, should work to bring "*service*" out of the attic, redefine it, and accept it as an integral component of our mission. In so doing, we

1. Interesting is their decision to visually highlight the term by using italics, often a means to show a tonal shift. The term "service" seems to have many tonal variations, some of which I'll discuss.

redraw the lines of the discussion, make the definitions we want to advance explicit, and take an active role not only in creating a curricular geography but also in assigning ourselves a place on the academic map that best represents us. Such an active role might enable us to achieve parity with other disciplines within the institutions of higher learning and avoid the fates of the non-European countries represented by European mapmakers, who were often marginalized, regardless of their actual size or status (Barton and Barton).

The Faces of Service

Implicit in Sullivan Porter's discussion is the belief that when "*service*" is used as a modifier what or whom it modifies is second-rate (as in "Oh, they're a *service* discipline" or technical writing is "merely a *service* course"). Used in this manner, the term "*service*" is pejorative and condescending. Those involved in such work are more servants than equals, providing something necessary, yet something mechanical, a skill that other disciplines see as separate from their endeavors.[1]

While there are earlier hints of the term's negative connotations, the focus on teaching writing as something mechanical and nonscholarly began in earnest in 1862, when the Morrill Act passed. With that act, the practical aspects of learning became even more explicit. College education became available for the masses. Colleges were inundated with students who needed to be taught to write, to use language correctly (in the tradition of mainstream academia and business communities). Our "decedents" were recruited to fill the gap. Departments had to hire "section hands" who manned the courses (Connors 208–09). These courses, at first, primarily composition, and later, technical and business writing as well, came to be slighted in part because they did not have the "scholarly cachet of philology or literary history" (184). The nonscholarly label and the sheer labor involved in this work led to the creation of what Connors calls "the permanent composition underclass" (184), an underclass associated with *service* and one that is an integral part of our history. It is no wonder that there are those among us who want to find a way to take the millstone from around our collective necks.

Yet, not all connotations of *service* are derogatory. Others that focus on "conduct tending to the welfare or advantage of another" (*OED*) are positive. These definitions seem in line not only with our field's historical role as the discipline responsible for literacy instruction but also with the mission of many institutions of higher learning, which is often associated with the concept of service. Ernest Boyer describes this connection in detail in *Higher Learning in the Nation's Service*, a manifesto of sorts arguing for a return to an environment in which the ideal of service takes precedence over seeking knowledge for knowledge's sake alone.

Many educators have relied on history to argue that the mission of higher education in general is to be of practical service to society. As early as 1100 B.C., under Emperor Wu Wang, schools were established in China to train administrators and officers in service to the state (Wallenfelt 69). Education in Athens, beginning in the sixth century B.C. and reaching a zenith during Pericles' reign (460–429 B. C.) also focused on preparing young men for service. During that period, the Sophists, professional rhetors who traveled from city to city, argued that "knowledge, laws, and institutions should serve the interests of the people" (Wallenfelt 70).

Institutional Issues

My immediate reason for addressing this topic is that I've been asked to develop a

1. See David Russell's discussion of how most disciplines see writing as the elementary skill of "talking with the pen instead of the tongue" (qtd. on 6). While necessary, it isn't usually deemed worthy of sacrificing time in their classes to discuss.

writing program that will serve the needs of the many departments that believe that they produce knowledge that benefits society. These departments (i.e., Computer Science, Crop and Soils Science, Mechanical Engineering) see their primary mission as contained within the university's motto of "Ut Prosim" or "That I May Serve." They believe that the production of knowledge is separate from the rhetorical acts involved in such production. They see the service they do as essential, and the service of those who teach writing as menial. In essence, they see a significant distinction between their kind of service and ours. What is worse, so do many of my departmental colleagues, as evidenced by an informal poll I administered recently.

My questions: How can those of us who are members of CPTSC build programs and argue for resources if what we do isn't valued? How can we achieve parity in institutions devoted to research if what we produce isn't really *knowledge* in the eyes of our colleagues?

Conclusion

My answers are tentative. To succeed, to achieve a status of parity, the tacit tradition linked to the pejorative term of "service" needs to be brought out into the open for examination and discussion. We need to "see" the text that was first written around the time of the Morrill Act, and we need to argue that the very forces that produced the universities and colleges many of us teach in are the same forces that created the need for our courses. We should wear the mantle of *service* proudly as we demonstrate the value of service to the university. We need not hide our relationship with service in order to claim disciplinarity.

To build relationships with stakeholders (within and without our departments), we need to examine what James White calls "invisible discourse" (the implicit expectations that are part of a culture) and what David Russell calls "tacit traditions." To build and maintain programs that are ecologically balanced, one of the goals of our organization should be to make visible the expectations about service that our stakeholders and we hold. This becomes even more important as more and more of our programs become truly interdisciplinary. To maintain integrity and continuity of purpose, we also need to encourage our colleagues in disciplines such as Communication, Computer Science, and Graphic Arts that become part of Technical or Professional Writing Programs to contribute to this dialogue about the social contexts for literacy and our obligations to our students, stakeholders, and society. We should answer what "service" is, decide whom we serve and why, and determine what those answers mean to us and to those we serve. Once answered, we can define, develop, and defend the concept of service to argue effectively for our place in the academy.

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Extending a Hand to Our Stakeholders: Examining the Risks of Service-Learning Courses in Technical Communication Programs

Roger Munger University of Arkansas at Little Rock

Service-learning classes in their various conceptions seem an excellent environment conducive to teaching our students sound technical communication principles. The essence of service-learning classes is the organized linking of academic study, community service, and reflection. Service-learning classes, thus, seem ideal for students to learn communication skills and gain valuable workplace experience. Moreover, through service-learning classes, technical communication programs can meet the needs of a particular community and establish strong relationships with various stakeholders. However, before we completely embrace service-learning pedagogies, we need to consider more fully the consequences. Without careful planning and supervision, service-learning courses place our programs, faculty, students, and stakeholders at risk.

While programs can achieve some superior results through service learning, such classes are not without their risks to the department and faculty offering the classes. Substandard work is likely to reflect poorly on the faculty offering the course and the program as a whole. Clients may be depending on the work and a failure to deliver has the potential to damage community relations with local industry. Indeed, it may take years to rebuild relations with a local stakeholder after a service-learning course fails. Given the risks, to what degree can or should faculty intervene? Students may not be willing or able to do the work. Some students may disappear at mid-semester. Do faculty have an obligation to the client to revise clearly inadequate work submitted by students at the end of the semester?

Without careful planning and supervision, service-learning courses place our programs, faculty, students, and stakeholders at risk.

Even if all goes well, service-learning courses usually take huge amounts of preparation before they begin, strict supervision during, and continued work after they end. Not all service learning fits neatly into a 16-week or 10-week academic term. A thoughtfully organized service-learning class on, for example, Proposal Writing for Non-Profit Organizations takes more time and funds than a traditional proposal writing class. How should we recognize the faculty member's contributions? In tenure decisions and load computations, is such work just another class? Consulting? Workplace service?

Likewise, what value should we place on student contributions? Are we creating forced volunteerism? Most often students involved in service-learning classes do not get paid for their work. Rather, they receive academic credit and relevant workplace experience. In one sense, we are forcing students to volunteer their services—services for which clients are willing to pay outside consultants top dollar. How do we handle cases when a student late in the course decides that he or she does not want to "donate" some project to the client? Does the student fail the course? Do we have a right to force students to sign over ownership of their work at the start of the semester? On the other hand, can we successfully run a service-learning class knowing that our students may leave the client in limbo? Moreover, what about the quality of the experience for the students themselves? Can a course that is partly about learning workplace communication skills and partly about service really do both well?

When service learning works, our stakeholders get a helping hand and our students learn immediate and relevant technical communication lessons. However, service learning is not without its risks, and programs in technical and scientific communication should consider these issues carefully before offering such experiences.

A Political Ecology of Service in Technical Communication Programs

W. J. Williamson Michigan Technological University

In this paper I raise for discussion both concrete and conceptual issues relating to the practice of linking general education courses in technical and scientific communication to courses in other disciplines. In light of continuing criticism of the overall quality and effectiveness of technical and scientific communication service course (e.g., Tebeaux), linking such courses directly to the professional development programs of other curricula seems a logical move toward a more effective pedagogy, and toward more fruitful relationships with other disciplines. However, despite rich possibilities for professional and curricular success, we continue to face political and financial failure in our endeavor here at Michigan Technological University. Institutional momentum does not easily support efforts to customize communication education for professionals outside of communication curricula.

In this presentation, I discuss the linkage between an upper division course computer science and a technical communication service course offered in the humanities. I draw on two years of accumulated experience, observation, and student commentary from my participation in this project, and on an informal survey of educators and professionals from several disciplines to generalize a set of discussion guidelines from faculty and programs who are interested in pursuing similar projects.

Linking technical communication courses to professional development programs of other curricula seems a logical move toward a more effective pedagogy.

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Embedding Industry Documents in Technical Communication Programs

Lisa Daidone University of North Carolina - Charlotte
Julie Dyke New Mexico State University

As teachers of technical writing at the university level, we have the responsibility of providing our students with instruction that is accurate, reflective of current trends in the field, and applicable in actual work environments. While professional internships allow students the chance to create or revise documents in rhetorical situations that go beyond the classroom, technical writing courses can also include assignments that achieve the same goal. Designing assignments that enable students to build links between the classroom and the workplace establishes an actual context versus an imaginary one and provides students with invaluable practical experience and portfolio pieces.

While there are many opportunities for creating or revising documents used by departments and programs within the university setting, working with professionals in outside industries is another option. To take it a step further, working with members of industry who rely upon technical documents to ensure safety and prevent accidents and health risks brings not only an actual rhetorical situation into the classroom, but a rhetorical situation with extreme importance. For example, industries that require the use of technical documents to accompany hazardous materials often lack technical writers on staff and as a result have documents that are both difficult to read and understand. By incorporating the examination and revision of existing documents that provide procedures and instructions for hazardous materials, we are granting our students the opportunity to analyze technical writing and realize the severity of the impact it can have.

Assignments that enable students to build links between the classroom and workplace establish a context and a sense of document impact.

One example of such a situation and document is the Material Safety Data Sheets (MSDS) used by any industry that keeps a chemical onsite. An MSDS is shipped with the accompanying chemical to the industrial end-user, and the end-user is supposed to keep this data sheet on file and readily available to employees. MSDSs provide written documentation of hazards the chemical possesses and describe what to do in case of accidental exposure or a spill.

If scrutinized in the technical writing classroom, the MSDS fails to represent effective or accessible technical writing. The inconsistencies, wordiness, and unreliable information in this document break all rules associated with format and style. Once students recognize and discover ways to improve these aspects of the document, they also realize the threat the MSDSs pose if relied upon in an emergency.

Assignments involving professionals, such as chemical engineers, who use documents containing information for hazardous situations and materials would provide both the professionals and the students with a better understanding of the implications of the document and its revision. Students could work with the professional to develop a more accessible and consistent format.

While students would benefit the most from this experience, professionals in the targeted industries would also become better educated about technical writing. And, because our responsibilities as technical writing teachers include raising awareness outside of the classroom as well as inside it, demonstrating the need for accessible technical writing would help industries recognize the importance of competent technical writers and might create job opportunities.

Do We Have a Community Here? The Stakeholder Ecology of Technical Communication Programs, Related Industries, and Their Legal Department

Bruce Maylath University of Wisconsin - Stout

In contrast to many academic disciplines, including the literary studies in which many of our departmental colleagues are engaged, technical communication relies heavily on the cultivation of industry/academy ties. Such links are critical to student recruitment, placement of interns and graduates, donations, locating research sites, developing teaching scenarios, and generally keeping up to date. However, the links can corrode and break when either partner, academic or industrial, sees its stake as providing one-way, rather than mutual, returns.

This presentation examines what happens when legal departments fail to acknowledge the reciprocal stakes their companies hold in academic technical communication programs. In particular, it looks at two instances when corporate attorneys attempted to quash academic research taking place within their firms for fear of proprietary disclosure or exposure to product liability suits. In each case, lawyers disregarded benefits that their companies were receiving from the relationship, including the placement of graduates as technical communicators for their firms.

These events call to mind a number of questions, foremost of which is, Can industry and academy work in consort if industry's legal departments, acting out a kind of paranoia, sever the relationship suddenly in midstream? Do legal departments understand that they are part of a community in which the community's members depend on one another and in which each has a stake in the other's health? Should the undercut partner continue to provide benefits to the other?

Links between academic and industry partners require a sense of mutual returns and would benefit from less paranoia by industry legal departments.

In terms of technical communication research, the questions grow more worrisome. Bernhardt notes that "Increasingly I find myself looking for research sites beyond the classroom and library" (452) and Johnson-Eilola calls for broader forms of technical communication research, such as workplace ethnographies. Such research in work sites is necessary to keep technical communication programs up to date, not least of which by supplying teaching scenarios, such as Rude supplies in the second edition of *Technical Editing* with examples from BMC Software in Houston and Science Applications International Corporation in Albuquerque. Without industry/academy cooperation, researchers must rely on disasters such as the Challenger explosion and Valu-Jet crash, available because subsequent public hearings have opened the records of firms like Morton-Thiokol and Valu-Jet. However, relying on the case studies of disasters has the lugubrious effect of leaving students with the impression that all companies are dissemblers hiding disasters waiting to happen. Industry/academy collaboration is essential for technical communication programs to convey to students the normal, routine conditions they will face in industry. Thus, this presentation asks, Can the research mission of technical communication programs proceed if legal departments do not understand the ecology of their companies' relationships with technical communication programs? How best can we educate lawyers of the mutual stakes involved for all parties?

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The Job Search Process as a Step Toward Career Affiliation

Pete Praetorius Michigan Technological University

The academic field of technical communication is perhaps the most vocationally-oriented of any of the humanities disciplines. Because of this vocational orientation, those who manage technical communication programs are expected by both students and those in the business world to foster an environment that helps students "get jobs." What I propose for this discussion paper is that we who are involved in administering programs in technical communication move beyond the mind set of career placement and toward career affiliation. We should strive to avoid simply "placing" corporate robots but to help professional communicators enter a complex web or network of other professionals.

When I attempted a couple of years ago to enter this network of professional communicators, I drew much more from my experience as a graduate student career center counselor than from my graduate classes in technical communication. From this experience I came to believe that although many teachers and administrators are working hard to help students think as professional technical communicators—members of a professional community—we should also not forget that the process of the job search can be an important part of becoming a full-fledged member of the technical communication profession.

The two realms of the jobs search process are professional involvement and personal research.

Through my experience in looking for a job in the field of technical communication, and more recently as a graduate assistant to a director of a technical communication program, I have come to value the lessons that can be learned from what I've come to see are the two main realms of the job search process. These two realms of the jobs search process center around professional involvement and personal research, and both are equally important. Professional involvement involves interacting with those who are actively employed in the field of technical communication. Personal research requires the person searching for a job to draw upon her or his academic research training. I will briefly highlight the different aspects of these two job search realms to encourage a discussion on career affiliation. What I personally would like to get out of such a discussion are different ideas or strategies on how programs in technical communication might best integrate the job search process into other programmatic activities that are in place to help students enter into the technical communication profession.

What is Keeping Practitioners and Academics From Meeting in the Middle?

Dale Sullivan Michigan Technological University

In the February 1998 issue of *Technical Communication,* George Hayhoe says that academics and practitioners in technical communication need to meet in the middle: "Without cross-fertilization, both academe and industry face the prospect of sterility" (20). The apparent rift between practitioners has long been noted, and calls for bringing the two together appear from time to time, sometimes coming from the practitioner side, as in the example just mentioned, and sometimes from the academic side, as when Elizabeth Tebeaux lamented, "...technical communication researchers, to give academic credibility to their work, have developed their own exclusionary language. This increasingly allusive...langauge gives intellectual stature and a sense of erudition to our work, but it also alienates nonacademic users of our research" (Tebeaux, "Nonacademic Writing," 50).

In this paper, I argue that there are three forces that separate academics from practitioners: status, advocacy, relationship.

1. Status

Legitimization as an academic pursuit and professionalization as a practitioner pursuit appeal to different ethoi—the ethos of the academy in the first case and the ethos of business and industry in the second. Both academics and practitioners seek to improve their status in different domains and those domains are motivated by different factors; therefore, as we move up in status, we are pulled apart from each other.

Three forces separate academics from practitioners: status, advocacy, and relationship. These areas of short-term differences are also grounds for long-term cooperation.

2. Advocacy

Academics and practitioners both inhabit roles of advocates, but we represent different constituencies in our advocacy. Academics serve as advocates for students vis a vis the demands of the business and industry; that is, we are under an obligation to our students to both teach humanitarian issues and to protect their interests and dreams from the pressures of utilitarianism (at least for part of their educational experience). Practitioners are advocates for users vis a vis the engineers, who are, in turn, advocates for the design vis a vis economic and managerial pressures. In other words, we all serve as advocates, but advocacy means trying to defend the inherent interests of a constituency against the pressures of another constituency. The real rub between academics and practitioners in technical communication is the inherent interests of students as full human beings who deserve an education that is more than a pre-professional training.

3. Relationship

Michael Halloran has said (in personal correspondence) that the drive toward professionalism requires that the public be conceived of as incompetents who are in need of the specialized skills of the professional (of whatever ilk). Practitioners, therefore, have a vested interest in characterizing the public as novice users and engineers as incompetent communicators because it is in the niche created by those two incompetencies that the technical communicator carves out an area of expertise. The academic, on the other hand, usually teaches practical writing courses for professionals in professions other than technical communication in the attempt to empower them as communicators. In other words, academics tend to diminish the level of incompetence among at least one of the two pools of incompetents needed to sustain technical communication as a profession.

Although these forces seem to lead us in separate directions, knowing what they are

may enable us to meet in the middle and learn from each other. Once we understand that our respective positions often create different allegiances, we can more fully appreciate the reasons for apparent incompatibility of the two sides of technical communication. Not only that, it is possible to see these categories as areas of short-term differences but grounds for long-term cooperation.

Although the status of both groups is grounded in different environments, professions that achieve status outside the academy lend status to those who teach in the profession. Those who teach in medical schools or law schools seem to have more status than teachers of technical communication because the professions they represent have more status. Second, we can argue that advocacy is central to both the academic and the practitioner—we are both advocates by avocation. Third, we are both interested in competence, in making people better at what they do.

These areas then provide the potential for common ground. They give us a chance to consider where our authorization comes from. Are academics authorized to speak on behalf of academy or on behalf of the profession? Are practitioners authorized to speak on behalf of their employers or as representatives of the profession? What both sides need is a profession that is more highly respected as a profession. That gives us common cause—to improve the competence of our performance, to take our mission as advocates seriously, and to promote the status of the profession.

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Charting an Evolutionary Path for Certificate Programs

Lu Rehling San Francisco State University

"So...if your certificate isn't a degree, what is it? What does it mean?" Responding in classic teacherspeak, my answer to this inquiry from a prospective student was: "Good question!" Then I proceeded to generalize, as well and fairly as I could, about the differences among:

- Our certificate versus our degree offerings (minor and B.A.).
- Our undergraduate certificate versus graduate certificates and Master's degrees offered by other programs at our university.
- Our regular university certificate versus academic certificates offered by our university's extension program.
- Our academic certificate versus CEU certificates (such as one offered by our university's satellite Multimedia Center).
- Our certificate versus course work-based certification credentials, such as those our university offers for teachers, in line with state requirements.

"OK, but what about other certificate programs in this field of study?" So, I tried to articulate the differences among:

- Our technical and professional writing certificate versus certificates in technical communication, information management, multimedia studies, business communications skills, and so on.
- Our certificate versus several certificates offered by area community colleges and university extension programs.
- Our certificate program versus the "Professional Sequence" offered by a local extension university, which promises that "a certificate is awarded upon completion of the program."
- Our certificate versus certificates offered online, via distance learning.
- Our certificate versus certificates offered by commercial training schools and/or recruiter/brokers.
- Our certificate versus the kind of test-based certification being (perennially) debated by STC.

"Wow! So...how do employers tell all these different kinds of programs apart?" Another "good question" to which I had no answer except, "When you apply for jobs, you educate them—with my help and that of our alumni, who are developing a reputation and presence for our program with local businesses."

Which leads to my questions: Does anyone among us have better answers? Could, perhaps, CPTSC contribute to the evolution of certificate programs in our field by helping to set some standards and publicize some parameters? We do have a beginning place for such an effort. Research (notably by Sherry Burgus Little, Katherine Staples, and Pam Ecker) already documents the variation in unit requirements and curricular elements among existing certificate programs.

Unfortunately, though—unless we adopt both "vive la difference!" and "caveat emptor" as rallying cries—we now need to go beyond documenting difference to start defining the nature and value of good certificate programs in our field. The answer is bound to be flexible and tolerant of a range of approaches, sensitive to the needs of many types of students, teaching institutions, industries, and communities. But it still could help to un-confuse prospective students and employers. In the long run, such efforts also might encourage weak programs to become better, with even longer term professional

We now need to go beyond documenting difference to start defining the nature and value of good certificate programs in our field.

benefits for both academics and practitioners.

Fortunately, I believe that, collectively, we can come up with better answers and clearer directions. No one should have to skeptically reconstruct the many inconsistent uses of the term "certificate." Nor should program directors like me be counted on to give unbiased and fully informed guidance. And, if CPTSC is serious about its mission of providing program reviews, then it needs some definitions of quality to guide it when assessing certificate programs.

So, may I suggest a next step in our evolutionary process? I've faced the kind of questions that I quote above numerous times. I would love to be able to refer those who ask them to some answers on CPTSC's website. "Good question," I could say, then assign some homework.

Swimming with the Bottom Feeders: Life, Times, and Disciplinary Isolation of the Two-Year College Technical Communication Program

Katherine Staples Austin Community College

The numbers of two-year technical communication programs, like numbers of other technical communication programs, continue to grow: 29 by STC's 1995 count. Others grow, thrive, and succeed or fold—but where are they? Certainly not at CPTSC or at ATTW. Do such programs and the faculty who teach in them have anything to contribute to the disciplinary conversation?

Two-year colleges grow in numbers and enrollment as the costs of postsecondary education rise and the workplace value of college education increases. Moreover, the profile of the two-year college student is changing to include learners of all ages, with diverse interests and a surprisingly wide range of educational credentials and workplace experience. Two-year college technical communication programs offer service courses, make successful connections with the workplace and between disciplines, and somehow (despite their lack of disciplinary connection) manage to place well-prepared graduates in good technical communication jobs.

Two-year college faculty are appearing visibly in places they're not expected: CCCC, STC, MLA, AAUP. They adopt technical communication texts (and even publish them). They teach (sometimes with distinction). They perform service roles (without complaint). But they stubbornly persist in connecting scholarship to such low status matters as pedagogy, the service course, and the workplace, just as the founders of CPTSC and ATTW did.

Although two-year college programs are thriving, they do not have a voice in CPTSC and ATTW and are turning to professional organizations for partnership.

If disciplinary organizations in technical communication distance themselves from the academics who prepare growing numbers of transfer students, who provide course work and short courses for industry, and who can be the enthusiastic users of research, of texts, and of new pedagogies, what will be the result? If the technical communication discipline has become a growing ecosystem, two-year college programs and faculty are its bottom feeders. We thrive on the leavings of others: service courses, transfer students, workplace education, technical knowledge and skills. Perhaps the bottom feeders are the ones to influence students and the workplace, turning to professional organizations, not academic ones, for support, partnership, recognition, and new ideas. We thrive in our disciplinary isolation—but at what cost and to whom?

Program Ecology, Program Diversity, Program Change

Mike Keene University of Tennessee - Knoxville

In the conclusion to *Education in Scientific and Technical Communication: Academic Programs That Work* (STC, 1997), I wrote that "Flexibility within programs and diversity across programs seem to be qualities to seek and to nurture" (196). I had in mind the analogy to species diversity as a sign of environmental health in, for example, mountain streams. In an ecological sense, the more diversity our sampling turns up, the healthier we suspect the environment is. The issue I am concerned with for this presentation is whether academic programs in technical communication in the United States are moving in the direction of greater diversity or greater homogeneity. Most of the interviews that produced the program profiles in *Academic Programs* were conducted in the fall of 1995 or spring of 1996. I want to discover (a) how those programs have changed in the intervening years, and (b) whether those changes are in the direction of greater diversity. In telephone interviews with the directors of 20 of the programs mentioned or profiled in the book (there are nine reasonably full profiles and many other thumbnail sketches) cutting across all eight types of programs described in the book, I will ask what has changed in the intervening years. (I see these as open-ended and unstructured interviews, but I will have in front of me a list of backup questions to use as needed.) Of course the sample size and the nature of the sample selection will limit the generalizability of the results. For the CPTSC presentation to be as current as possible, I will conduct the interviews in September 1998. While my CPTSC talk will certainly include some summary of how these programs have changed in general, that is not my focus. My focus is are academic programs in general changing in the direction of greater uniformity or greater diversity? My position is that if the change is in the direction of greater diversity, we are looking at a healthy ecological system. While I think that simply looking at how a reasonable cross-section of programs is changing would be of interest in and of itself, it's the connection between diversity and ecological wellbeing that I'm pursuing here. That is, the issue I want to place before the group is not "what changes are taking place?" but "what are we to make of those changes?"

If program changes are in the direction of greater diversity, the ecological system of academic programs is healthy.

The Problem with Certificate Programs

Sherry Burgus Little San Diego State University

The relative ease with which the evolution of certificate programs from existing service courses in technical writing can be developed is one reason for their popularity and one explanation for their dramatic growth. As chronicled in the four editions of *Academic Programs in Technical Communication*, technical programs of all kinds have experienced a dramatic growth over the past 20 years. The growth in certificate programs has paralleled this growth of all technical programs with the number of certificate programs more than doubling between 1985 and 1993, from 16 programs reported in 1985 to 37 programs in 1993.

The advantages of developing a certificate program that help explain this growth include the ease and speed with which they can be designed, implemented, and modified. A certificate program does not require the staggering amount of paperwork and chain of approvals that degree programs demand. In most institutions, though a certificate program must go through a careful approval process, this process rarely extends beyond the local institutional level. Degree programs must win approval from committees and administrators at all levels and frequently beyond the local institution itself to centralized administrations, boards of trustees, state-level educational approving agencies, and even state legislators. Such approval processes are time-consuming, sometimes taking years before a degree comes into existence.

There is as much danger in privileging knowledge without its connection to workplace realities as there is in a purely vocational certificate program.

Because technical communication is an interdisciplinary field, certificate programs can be designed by using many courses that already exist as part of other programs. Additionally, many institutions already offer courses in technical writing. These already existing courses can become the core of a certificate program, allowing a coherent program to be developed without needing many new resources such as faculty, staff, or equipment, a distinct advantage during times of budget crisis and the resulting constraints on development of new programs.

Because certificate programs entail fewer hours to complete, students can earn certificates quickly, an advantage that appeals especially to the returning student who may already have a degree and wishes to move quickly into another career field. Certificate programs, because of their structure and design, can also be more flexible to local needs. They can be modified easily and quickly, adapting to changing demands, because they are generally monitored and scrutinized less closely than other kinds of programs. Because of their flexibility—their content is rarely mandated by degree requirements or educational legislation—they can be individualized for students, adapting to diverse backgrounds and goals.

These very advantages, however, can also be sources of problems. These problems include quality of programs, lack of standardization, acceptance as credentials for hiring or promotion (especially beyond the region served by the institution), and the taint of "vocationalism" (that dirty "V" word) associated with such programs. The fourth edition of *Academic Programs in Technical Communication* describes the wide variety of certificate programs and this data provides evidence of some of these problems. For example, some programs serve those who wish to acquire entry-level knowledge, while others serve professional technical communicators who wish to upgrade their knowledge of the field. Some are designed for experts in the technical communication field, while others are designed for working professionals and tech-

nical and scientific fields who do writing as part of their job, but are not thought of as professional technical communicators. Some of the programs are offered at the graduate level, and some are at the undergraduate level. Some of the certificate programs span both levels. The preparation for students in certificate programs vary widely, with some programs requiring work experience and competencies in fields of graphics and computers, technical fields, or in marketing, management, advertising, human behavior, or interpersonal communication, while others merely encourage such preparation. Certificate programs can be completed by earning as many college units as an undergraduate major, while others require as few as three or four courses. Programs listed in the fourth edition of *Academic Programs in Technical Communication* require as few as 9 units up to as many as 40. Generally a little over 50% of 37 institutions offering certificates require between 15 to 20 units.

What exactly students study within these required units varies widely and reflects the design and purpose of the different programs. The issue of what students study reflects a larger debate in American higher education, a debate many of us in institutions that have Presidents who refer to themselves as CEO's and to students as products are hearing, the debate of the issue of training opposed to education, or in other words, theory vs. practice. Because certificate programs are more closely associated with the "vocationalism" that is decried by most opponents to the practical in higher education, program designers must remain critically aware that if the program is perceived as one primarily concerned with training students to get jobs, the program may find widespread resistance and hostility, especially if it is housed in English departments, as most programs are. This factor places program designers into an ironical position, given current "corporate" associations we hear about higher education. One of the marks of a program's success is that its students get and keep jobs. Despite the growing trope of the university as a corporate enterprise, there is as much danger in privileging knowledge without its connection to workplace realities as there is in preparing technical communicators for today's jobs while ignoring the needs of the future. A healthy balance must exist between the theoretical and practical when designing certificate programs in technical communication. Faculty developing technical communication certificate programs walk a tightrope, balancing the opposing forces that such programs, and actually all programs to a certain extent, represent: the place of practice in relationship to theory.

This continuing debate was crystallized most recently in a discussion on the ATTW listserv over the issue of how much technology students should be required to learn. One commenter observed that he had collected over 2000 job ads that demanded knowledge of specific technological tools, such as FrameMaker. The debate centered on whether or not students should be studying rhetorical principles (theory) or be taught how to operate specific computer applications. Though the matter was resolved more or less by both sides agreeing that students need both, the discussion teetered for days in an either/or debate of what our programs should contain.

Although the problems associated with certificate programs I have outlined here is not an argument in my mind for standardization through some kind of certification, or accreditation of programs, these problems are certainly those that program designers need to be aware of in developing programs. For such programs to establish a legitimacy for themselves, to escape the taint of "vocationalism," designers of these programs need to balance theory and practice in their program design.

Evolving Perspectives

Defining, Assessing, and Positioning Our Programs

What's in a Name? Just as Shakespeare Pondered Long Ago, Let's Revisit the Question
Sandra W. Harner

Anticipating Standard Skills Assessment in Technical Communication Programs
Ken Price

Evangelizing for the Profession: How Can We Spread the Word about Technical Communication?
Gerald J. Savage

Evolution and Ethics: The Dilemma of a Small Technical Communication Program
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A Plea to Make History More a Part of Current Curriculum
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Encouraging International Outreach

A Rose is a Rose is a Rose—Or is It? Forgoing Denotation of Field-Specific Global Access Programs to Encourage Diverse University, Industry, and Government Participation
Ty Herrington

Meeting the Needs of a Global Community: Technical Translation Answering the Call
Elizabeth Pass, Mike Zerbe

The Programmatic Challenges that Complicate International Collaboration
Judith Ramey, Mary Coney

The Development of Graduate Concentrations and International Partnerships in Technical and Professional Communication Programs
Herb Smith

Challenging Our Environment

Grazing Through the Food Chain: Symbiosis in the Land of Science Writing
Ann Jennings

The "Greening" of Technical Communication: The Environment as a Programmatic Stakeholder
Henrietta Nickels Shirk

What's in a Name?

Sandra W. Harner Cedarville College

What's in a name? Just as Shakespeare pondered long ago, many people in the field of technical communication are revisiting that question.

History gives us a good perspective. When the Society of Technical Writers and the Association of Technical Writers and Editors merged to form the Society of Technical Writers and Editors, it was clear that the focus of our profession was on the practice of writing and editing. Later the Society of Technical Writers and Editors merged with the Society of Technical Writers and Publishers and formed the Society of Technical Writers and Publishers, cementing our orientation toward writing.

In 1971, this group changed their name to the Society for Technical Communication, acknowledging that the membership practiced a range of activities other than writing. At about the same time, a similar recognition appears in academia with the formation of the Council for Programs in Technical and Scientific Communication (CPTSC), and while ATTW retains "writing" in its name, they changed the name of their journal from *The Technical Writing Teacher* to *Technical Communication Quarterly*.

It is apparent that we believe our name is crucial in establishing our identity.

For a long time, IBM has called their technical writers Information Developers. And lately, our textbooks, course titles, and job titles have used some form of the word *design*.

A name establishes an identity. Perhaps this field has outgrown "communication" and should prefer "information design."

I think we would all agree that we have outgrown the title Technical Writer. But the question for the day is have we outgrown the title Technical Communicator? And, if so, what shall we call our academic programs?

In a recent book published by STC, *Education in Scientific and Technical Communication: Academic Programs That Work*, programs are listed with the following names:

- Scientific and Technical Communication
- Technical Writing
- Technical Communication
- Technical and Science Communication
- Technical and Professional Communication
- Technical and Professional Writing
- Professional Writing
- Professional and Technical Writing
- Technical Journalism

Should we still offer degrees in Technical Writing or Technical Communication? Or perhaps our degree title should be more closely aligned with what we are about: Information Development or Information Design.

What's in a name, we ask. And I would answer, Everything! In my program, entitled Professional Writing but in reality a technical communication program, I still get majors who want to write the great American novel. My experience demonstrates that until students are enrolled in a technical communication course, they have no clue what technical communication is all about. So if I change the name of my program to Technical Communication, will they come?

Will a program in Information Design elicit any more respect from the academic community who still doesn't understand technical communication? These are important questions that we must answer as we seek to clarify our identity to those around us. So I ask you, what's in a name?

Anticipating Standardized Skills Assessment

Kenneth Robert Price Southwest Missouri State University

Until recently, the assessment of the professional writing program at Southwest Missouri State University has been done internally, through the University Assessment Office. Last year, however, a survey was distributed among technical writing programs nationwide by the DANTES Testing Service that asked faculty members to outline a list of standard writing proficiencies in undergraduate courses. While participation in the survey was discouraged by ATTW, SMSU's Director of University Assessment saw the test as a possible means of evaluating our program.

This raised programmatic concerns pertinent to all programs in scientific and technical communication:

- Will we be asked or feel the demand to restructure the curriculum in our classes to reflect a prescribed list of standardized proficiencies?
- Will the theoretical be sacrificed for the practical in the curriculum, if industry dictates?
- What methodology should be used to assess technical communication programs and writing skills?

We need to explore how our courses and programs might be transformed by standardized assessment. Ultimately we must decide if we will choose to follow or to lead in keeping our courses current and our programs respected.

Standardized assessement could change the character of our programs.

Evangelizing for the Profession: How Can We Spread the Word about Technical Communication?

Gerald J. Savage Illinois State University

How is that our technical communication programs are growing, our graduates are finding jobs, yet what most people outside of the profession seem to know about what we do is limited, distorted, or simply nonexistent? Among employers, professionals in other fields, and students who might find satisfying careers as technical writers there seems to be little awareness of what technical communication means, what technical communication professionals can offer employers and clients, and how the profession contributes, or might contribute to society as a whole.

I want to focus on two populations in which I believe ignorance about technical communication is vitally important for us to overcome: first, potential students of technical communication; second, organizations that employ or might employ technical communicators.

Recently, under the subject line of "H.S. technical writing" on the ATTW list, there was a round of discussion, some of it passionately frustrated, regarding the fact that high school English teachers and program administrators are unaware, misinformed, or resistant to workplace-oriented writing courses at the high school level, despite evidence that such course would be likely to prepare high school students better for state-mandated standards tests and college qualifying tests, not to mention jobs for students not planning to go to college. Carolyn Rude commented in an ATTW-L message just two weeks ago that the near invisibility of our academic programs and our profession is one reason that there are too few qualified graduates of technical communication programs to meet industry demands. As Dorothy Winsor observed in a discussion on the same list a few weeks earlier, "Almost no freshman ever arrives at the university intending to major in rhetoric, composition or professional communication. So far as I can tell, this is because they don't know the field exists, don't know you can get a job doing it, etc."

Technical communication should be promoted both with potential students and potential employers in classrooms, high schools, and industry.

I meet students every week who ask me, "what exactly is technical writing anyway? I know there's a course...." This is particularly frustrating because I seldom meet these students until they are in their final year in school. When they hear what technical writing is and what it could mean for them professionally they are both excited and dismayed—excited to learn that there is a way to make a good living and do interesting work as an English major, but dismayed because they have had few or none of the courses that would have prepared them for such work and it would take them another two or three semesters beyond their present schedule to take the necessary courses.

The second population whose ignorance of technical communication we need to overcome is not just in the organizations that should employ our graduates, but even in those that do employ them. Just this summer, Kelli, a graduate student of mine interned in a local firm which has hired a number of our students. She was assigned to work with a programmer who asked her in what field she was getting her master's degree. When she told the programmer she was working on a concentration in technical writing the programmer burst out laughing. "No, really, I'm serious," said the programmer. "What are getting your master's in?" Kelli said she was serious, too, her field was technical writing. The programmer laughed again and said, "I can't believe they would actually give a master's degree in something so trivial!"

Now, I don't want to suggest that most of those who don't know what technical writing

is are so offensive in their ignorance, but what does concern me is that even among those who know enough to hire technical writers there is sometimes little understanding of technical writing. This lack of understanding prevents employers from being able to write appropriate job descriptions and from fully utilizing the abilities of competent technical writers when they hire them.

Goodness knows, we have enough to do already, but I'm not sure it makes our jobs easier if we ignore the ignorance that prevails concerning our profession. It isn't a new idea that we as a profession are woefully shy about tooting our own horn. But despite past laments about our complaisance, little has been said in any concerted way regarding strategies that might help us effectively evangelize for the technical communication profession.

For the remainder of this talk I want to focus on methods that might help us inform the two strategically important populations I've mentioned. I'm hoping that during the discussion time you will offer your comments and additional ideas.

1. Evangelizing in the TC Classroom

Many of the students in our technical writing service courses will never be professional technical writers. But I've just begun to realize how important it could be to ask students whose careers will be in other fields to think about how they should work with writers and what they should expect of professional communicators. Imagine what a difference it could make if, for example, the computer science majors in our classes who will soon be taking industry jobs were able to articulate realistic expectations for technical writers. I now make this a subtext of my technical writing courses in which it is often the case that most of the students are majoring in such fields as industrial technology and applied computer science.

2. Evangelizing through Professional Service and Internships

As Deborah Bosley and others have argued (Bosley; Schutz and Gere), service learning and internships are in many ways superior formats for teaching technical writing. Service learning is also a great way for STC student chapters to gain professional experience (Land). I use both of these approaches, yet, in many cases, the organizations I contact to arrange these opportunities initially show little understanding of what technical communication is and how professional communicators might benefit them. Service learning projects and internships are opportunities to educate not only our students but the providers of the opportunities about the nature and value of technical communication. One method I've used to assist me in this task is to follow my calls with a brochure designed to explain what technical writers might do for their organization.

3. Evangelizing through Chauvinism

Teach technical writing students that it will be to their advantage, and to the advantage of their employer, to display pride and enthusiasm for the profession among their colleagues and in their interactions with other people in the organizations they work in. Technical communicators should be ready, also, to seek ways and occasions for providing information about what this profession can do to make other professionals' jobs easier, and add value to the products and services of the organization. We might do well, in fact, to include in our technical writing courses study and discussion of recent research in quality issues in the field.

A former student, now working as a writer in the Creative Services Department at State Farm, was told by her supervisor that for a long time before she came there the department had struggled with their internal clients' ignorance about the nature of technical writing. This ignorance affected their ability to work with subject matter experts, project deadlines, and the expectations of their cli-

ents for the kind and quality of work the writers did. In the advanced course she had taken from me, we had spent some time reading about and discussing such issues. This student happened also to have a strong background and work experience in public relations and she was able to convince her department manager to let her develop a brochure called "What is a Technical Writer?" to be distributed to client departments within the corporation. The brochure explains both what a technical writer can be expected to do, and just as important, what a technical writer should not be expected to do. David Hill, Creative Services manager, said that the brochure was welcomed and has made a difference not only in how their clients perceive the department, but apparently in how the writers in Creative Services perceive themselves.

4. High School Outreach

Many high school representatives say that they would welcome representatives of industries, trades, and professions willing to come and talk to students and faculty about the jobs available and what it takes to get those jobs. Clearly this is an open door for technical communicators, faculty, and program directors to establish awareness of our profession among a segment of the population that apparently knows little about us.

In the ATTW-L message I mentioned earlier, Carolyn Rude called for development of promotional materials that would have greater appeal to potential students, including more attractive brochures and development of "an interactive hypermedia introduction to the career." She suggested that this could be distributed both on the web and via CD-ROM to high schools and colleges and be made available for career fairs.

Few of us, perhaps, would care to go door to door distributing tracts, but we do, I believe, have an obligation to find effective ways to educate those who should be using the services of the profession and to win, as Dorothy Winsor said, "more and better students." I am hopeful that *finding* effective ways to do these things is the most difficult challenge we face as evangelists. If we can do that, the evangelizing itself will be a light burden and will reap great rewards for the profession.

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Evolution and Ethics: The Dilemma of a Small Technical Communication Program

Celia Patterson Pittsburg State University

Pittsburg State University, in Pittsburg, Kansas, offers an emphasis in technical writing as one alternative for its BA degree in English. The Technical Writing Program has always remained small, and in the last few years has been threatened by the lack of resources to hire the new faculty and to invest in the new technology needed to keep the program viable. As the English Department began a review of its programs this year, it began to look more and more likely that the Technical Writing Program would be eliminated. However, due to circumstances too complicated to explain here, the department ultimately decided not only to keep the undergraduate emphasis in technical writing but also to add an emphasis in Professional Writing and Rhetoric on the graduate level. Although this evolution appears to be a positive one, it increases what, for me, as the director of the program, was already an ethical dilemma: Can a small program with limited resources adequately prepare a student to be a professional technical communicator?

I already had my doubts after reading the research on program design, especially the 1993 article by Donald Zimmerman and Marilee Long, "Exploring the Technical Communicator's Roles: Implications for Program Design." This article outlines a model curriculum for a four-year program and makes obvious the difficulty of including all the courses a student needs to be prepared to enter the technical communication profession. How, then, can an *emphasis*, as opposed to a full four-year degree program, adequately prepare its students, especially an emphasis that is part of a traditional literature degree that requires students to take a core of literature courses, thus reducing the number of technical communication courses they can take?

Developing a small program with an emphasis rather than a full degree raises ethical questions.

We all want our programs to evolve, but as the technical communication profession itself evolves, will small programs, especially those that consist only of an emphasis rather than a full degree, be able to keep pace with that evolution? And at what point are we ethically required to make that decision?

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A Plea to Make History More a Part of Current Curriculums

Karen Rossi Schnakenberg Carnegie Mellon University

Ecology and evolution are vivid metaphors to apply to programs in technical and scientific communication because they nicely capture the sense in which our programs are constantly changing but need to consciously preserve the fundamental elements and relationships that provide a firm foundation for positive and needed change. The greatest challenge we face, I think, is precisely this balancing act between stability and change.

Over the last couple of years, our programs—undergraduate, masters, and PhD—have, like programs throughout the country, evolved in a number of directions that mirror changes in technology, academia, and the workplace. We've added courses in online information design, writing for multimedia, instructional design, and public advocacy writing. And we've moved to include rhetoric and research methods more centrally in all our courses. Additionally, we've established relationships with other departments so that our students can take required courses in graphic design, organizational management, computer science, human computer interaction, public policy and arts management, and software engineering. At the same time, we've kept a core set of courses and tried to work out a reasoned balance between this stable foundation and necessary change by structuring the curriculum to include six cores courses and six electives, with the core holding down the basic ecology and the electives carrying the burden for both evolution and a reasonable range of options.

A sense of how communication technologies and strategies have evolved may help to develop analytic and problem-solving skills in students.

There is, however, one important curricular element that we have consistently tended to overlook, and I've begun making a plea with me colleagues on this point and would like to make it to CPTSC as well. As we move to include as much as we can within the constraints of time, resources, and faculty expertise, I see a sense of history, which has not traditionally been a strong component of technical communication programs, being given too little attention, and I see this as a significant problem. So, two quick points on why I think a historical component is necessary and how we might begin to include it given the multiple curriculum pressures and constraints we face.

Why it is necessary? We've all seen the statistics both on the increasing rapidity of technological change and the probability that students entering today's workforce will have multiple positions and employers over their working lifetime. One response to these pressures is to constantly update curriculum to try to match the currently in-demand job profile, and we do need to do this, but we also know that doing so is an endless task with relatively short-term benefits. I'd like to suggest that a sense of how communication technologies and strategies have evolved, in tandem with work in current technologies and strategies, may be a reasonable step toward developing the strong analytic and problem-solving skills that today's students will need in tomorrow's workplace. Knowing, for example, how and why CFPs have evolved, or the historical relationship between writers and designers, or how reproduction technologies (clay tablets, carbon paper, offset printing, photocopying) affect the distribution of information, can provide an understanding of how and why change occurs, a perspective on current situations and issues, and tools for evaluating and responding to change as it occurs.

How can we integrate a historical perspective into already crowded curriculums? A couple of suggestions:

- Include a relevant overview or at least one historical article on a relevant topic in each course
- Build a historical component—e.g., in scientific journalism, sample news coverage of medical topics over five decades—into one assignment per course
- Become familiar with relevant history and integrate this knowledge into class discussion at relevant points
- Bring in guest speakers on relevant historical topics

When we consider evolution in terms of the natural world, it seems obvious that the thinking about evolution involves understanding both of the changes that are occurring in the present and the history and conditions that have preceded and made those changes possible. So too with technical communication.

Programmatic Directions of a Social Perspective Focusing on Action

Carolyn D. Rude Texas Tech University

This position relates to the way this field will write its future rather than to its past. Although the social and cultural perspectives on discourse have influenced classroom practice, defined workplace practice, and affirmed critique as a valued method, these perspectives could lead the field further in developing knowledge of the ways in which discourse shapes public policy and action.

The dominance of the computer industry in technical communication has stimulated good knowledge about users and usability, document design, task orientation, technology, and quality production methods. In the 1990s, a print or online manual cannot be regarded simply as a text. Rather, it is contextualized in a problem, a location, and a method of development, and it is presumed to have an active life after production. By contrast, knowledge of policy documents as they are situated in particular locations, embed cultural values, and are used to influence decisions and actions remains pretty much at the same level as it was two decades ago. Textbook advice about reports and proposals is text-based even when it refers to audiences and problem solving.

There are good reasons for dynamic or static development in these aspects of technical communication. The main one is financial: the computer industry offers our students jobs. Another is that manuals are ubiquitous while policy documents are often invisible. They are harder to research and trace. Although the computer industry has created opportunities and as well as incentives to develop knowledge, defining the field in terms of this relationship restricts the environment in which this field can be influential.

Social and cutural theories of discourse point this field to engagement in policy decisions beyond critique.

The social perspective points toward responsibility not just for critiquing culture but also for initiating policy changes. Critique is a good first step in defining issues, but as a last step or as a goal, it relegates the field to commenting, not to influencing. Yet social problems are deep, and this field has knowledge that could contribute to solutions.

Two questions emerge from this position:

1. Is it appropriate and desirable for technical communication to develop a more functional and aggressive approach to social topics? There are possible sacrifices of identity (what is "technical" about a gender problem?), of profitability (where are jobs for students who are expert in advocacy genres?), and of diversion from the high tech community that legitimizes our work. An emphasis on practice and action could seem to diminish the growing theoretical sophistication that marks this field. On the other hand, a sense of social responsibility apparent in critiques of communication in situations including the Challenger, the Holocaust, and the MOVE disaster impels the field to do more than critique.

2. If the social perspective develops into an action oriented approach to curriculum, what should that curriculum involve, and what research would support this curriculum development? One goal might be to try to develop the kind of contextual information that has expanded knowledge of computer manuals—an emphasis on users and usability, inquiry into methods of development, testing of document design choices, and tracking of actions that result from particular kinds of discourse.

Answers to these questions will influence the identity and evolution of the field as they determine our stakeholders and environments.

Out From Beneath the Underdog: Toward a History of Technical and Scientific Communication in the American Academy, 1950–2000

Robert R. Johnson Miami University of Ohio

I am in the very early stages of a historical project focusing on the history of technical and scientific communication programs in the American academy sine 1950. The end goal of the project is a book-length study, but for now I am working toward this greater goal by developing a multi-modal methodology to drive the study. That is, I want to write a "living history" that will use not only archival and other documented sources of our academic heritage, but will also include such methods as interviews and surveys of the people who have actually "written" the history over the past fifty years.

At the 1998 CPTSC meeting, I would like to use my time to present a short rationale for my project and then elicit responses from the participants concerning the kinds of questions that such a study might ask. For instance, I would be interested in hearing my colleagues tell me what they think would be significant about a study of technical and scientific communication institutional history. In addition, I would like to discuss with them the types of methods that would be most appropriate for my purposes. In other words, I want to talk to the "users" of academic programs—those of us who come to the CPTSC conference—to help me make some early design decisions regarding the beginnings of this project: a project I imagine will potentially be of interest to those of us who are engaged in the day-to-day work of professional communication programs.

A new historical study will explore the emergence, development, and institutionalization of technical communication in the American academy during the second half of the twentieth century.

In order to provide a little more background, I am including the following paragraphs explaining my research rationale and proposed methodology. This is excerpted from a research grant proposal that I have recently completed to help support the project.

Rationale and Context for the Study

There have been a number of significant book-length works dedicated to the historical analysis of English studies. Some, such as Graff's *Professing Literature*, Ohmann's *English in America*, and Elbow's *What is English?* have told the story of English studies in broad, conceptual ways. That is, they have brushed broadly the history of the field and have contributed valuable knowledge of who we are and what we do as professional academics in the general field of English.

Other historians have analyzed several of the subdivisions of English studies to uncover how these smaller entities have developed their own identities within the larger scope of English studies (e.g., Miller's *Textual Carnivals*, Berlin's *Rhetoric and Reality*, Adams' *History of Professional Writing*, Myers' *The Elephant's Teach*, North's *The Making of Knowledge in Composition*, and Russell's *History of Academic Writing*). It is with this second group of histories that my work will have kinship as I will explore the emergence, development, and institutionalization of technical communication in the American academy during the second half of the twentieth century.

Interestingly, none of these book-length works have discussed technical communication in any detail. Russell and Adams touch on the general phenomenon of technical, business, and scientific communication, but their focus is on other matters. Thus, their investigation of technical communication as an institutional force is cursory to say the least.

That no serious attention has been paid to technical communication in the academy is curious given that more than 100 programs at the undergraduate and graduate level have

emerged over the past fifty years (one of the oldest and most prominent being right here at Miami). This could be in part due to the late arrival of the field—in 1950, for instance, there were no programs whatsoever and only a smattering of service-oriented courses, usually at large technological universities. Also, the field has been strongly oriented to the practice of teaching, and it is probable that many involved with technical communication in the academic institution have carried heavy teaching loads, therefore making them less able to do intensive historical research.

Unquestionably, such a strong and rapid development is worthy of serious investigation. In addition, it is most opportune to begin the investigation of this field now because many of the major figures are still active members of the profession and are available for personal interviews and correspondence. I intend to take full advantage of this rare opportunity by using such data to provide a "lived experience" core to the investigation (see Methods below for an elaboration of this).

Methods

Although I am writing a history, I do not wish it to be solely a linear approach to the subject matter. Drawing from current scholarship in historical and interdisciplinary method (Stanford, Osborne, White, Klein), I propose to mix linear history with in-depth analyses of developments in the field for several reasons.

First, a traditional linear approach might argue that the emergence of technical communication undergraduate programs preceded graduate programs. In some institutions this is true, but in others graduate study preceded, and in fact has continued to exist in the absence of any significant undergraduate curriculum. Why has this occurred in technical communication? What significance does it hold for our history? What might it tell us about future developments and/or limitations in the field?

In addition, it is clear that technical communication has existed for significant periods of time in some institutions without ever becoming recognized as more than a few minor service courses (Ohio State is an excellent example of this). Yet in other cases (even among institutions with similar institutional structures and goals), these programs have emerged with quite different goals, purposes, and curricula.

It can also be noted that the types of institutions (technological, liberal arts, research-oriented, teaching-oriented) where technical communication programs have emerged are quite different, thus giving some programs quite distinct characteristics that tell us as much about the greater institutions as it does about technical communication. Miami is a prime example of this: the undergraduate and graduate programs in technical communication at Miami have prospered despite the absence of any large technological college on the campus.

Beyond these institutional questions that might partially be answered by archival study, I also want to get at the stories, the narratives of these programs. Or, as some feminist scholars have put it, I want to describe the "lived experience" of the actual people who have shaped the field. To this end, I will interview a number of these pioneers in the field and I will develop an extensive survey that will enrich the more local narratives with broader, more general perspectives of how programs emerged, how they have developed over the years, and what their prospects are for the future.

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A Rose is a Rose, is a Rose—Or is It? Forgoing Denotation of Field-Specific Global Access Programs to Encourage Diverse University, Industry, and Government Participation

TyAnna K. Herrington Georgia Institute of Technology

Programmatic relationships with stakeholders in engineering colleges, industry, and government may be best served either by defining technical communication programs broadly to create a more accepting environment for effective and productive teaching of technical communication or, however counterintuitive, by forgoing definition altogether. Particularly as administrators and instructors in technical communication work to expand distance education programs into global arenas, redefinition or even forbearance of definition of a program as technical communication, can lead to more inclusive treatment of the activities that we pursue within our field.

My recent experience in developing the distance education portion of our exchange program at the Georgia Institute of Technology (a predominantly engineering institution) with the Russian Academy of Sciences, St. Petersburg, has revealed that the ability to draw support from department members outside technical communication has arisen from a focus on the value of achieving effective global access for pragmatic purposes rather than for introducing a program in "technical communication." Proposing a program denoted as "technical communication" can create a perception of competition against other departments' interests; purposeful global access, which benefits varied departments and requires functional communication informed by cultural understanding, need not be explicitly named "technical communication," even though it remains central to the work in our field.

The name "technical communication" may limit opportunities to develop functional communication informed by cultural understanding.

Individuals in government and industry also desire training in collaboration and communication over distance, areas with which academics in technical communication have great facility; yet these individuals in government and industry deny the need for training in what they perceive as technical communication. To forgo use of the term, "technical communication" to describe our programs may aid in reaching potential students, and industry and government clients interested in entering continuing education or distance learning programs to develop facility for distance and global communication. The challenges of the suggestion above are clear:

- How can we maintain our presence in university systems without defining ourselves?
- Should we forgo using the name "technical communication" or should we define the term in a way that includes activities outside the common perception of what the term denotes?
- How do we defeat limited perceptions of what technical communication is if we continue to use the term?

Meeting the Needs of a Global Community: Technical Translation Answering the Call

Elizabeth Pass James Madison University
Mike Zerbe James Madison University

As our community becomes increasingly global, we as technical communicators must lead the way in responding to the demands of business, industry, government, research, and education. A large and critical demand from these different areas is for reliable technical translation. From business to education, cultures need to be able to communicate across many borders, and language is a daunting border. Effective technical translation keeps borders from becoming barriers.

All kinds of technical communication need translation—from instructions, to contracts, to government policy and regulation. Ineffective technical translation can result in expensive, even dangerous consequences: a business could lose money from a poorly translated contract, or poor instructions could lead to endangerment or loss of life. Technical communication programs are becoming well-established all over the nation; however, none contain a formal technical translation program. The field of technical communication is losing an opportunity, even doing a disservice, to the many areas we serve by not meeting the needs of our growing global community.

James Madison University (JMU) is answering the demand from global communities for technical translation education and training. JMU's Institute of Technical and Scientific Communication (TSC) is working with the Department of Foreign Language and Literatures (FL&L) to establish a Technical Translation Program. This program will be a shared program, benefiting the students of TSC and FL&L. This is the kind of program industry, governments, and non-governmental organizations need to fulfill the demands of their business.

A program in technical translation meets a need resulting from increasing globalization.

The questions left to ask are:

- What kinds of courses best prepare the individual for a career with technical translation?
- What balance should be struck between theory and practice?
- What are the basic competencies needed in technical communication and foreign language for an individual to successfully complete the program?

As our communities evolve and we become more global, our field is responsible for evolving so that our programs meet the needs of those we educate and serve. Technical translation is one of those needs, and the field of technical communication, with its growing number of quality programs, is well positioned to fulfill that need.

The Programmatic Challenges that Complicate International Collaboration

Judy Ramey University of Washington
Mary Coney University of Washington

The development of interest worldwide in technical communication both as a profession and as an academic discipline has been very heartening but presents us with real challenges in developing a workable environment for systematic collaboration among academic institutions around the globe.

Barriers to such collaboration exist at a number of levels. For most Americans, at least, the barrier of language itself complicates efforts to collaborate. We can find international partners and programs that accommodate English-only speakers, but we must question whether this approach offers our students an appropriate international experience.

Beyond the question of language, the structure of institutions varies widely among cultures around the world. In Europe, for instance, the typical course of study is not decomposed into discrete courses and terms (although there is trend, variously called "semesterization" or "modularization," to do so). For this reason, it is difficult for a European student to "interrupt" his or her studies to spend a term at an American institution. Also, at the PhD level in Europe and other parts of the world, the study is based in research rather than coursework, which again creates problems in establishing the equivalences among programs that must underlie many types of collaboration. And more fundamentally, perhaps, only a small number of academic cultures around the world recognize technical communication as an academic discipline (though the rapid growth of professional practice globally may effect a corresponding growth in the number of academic programs). Added to these basic structural issues are all the problems of credit hours and grades, start dates and end dates, and all other minutiae that must be attended to in order to launch an international program.

Language and the structure of institutions are barriers to international collaboration, but that collaboration creates an international environment for studying technical communication.

But we can also find many creative opportunities to foster the growth of collaborative structures that in time may evolve into formal, systematic solutions to the problems sketched above. For instance, we can go outside the strictures of the regular academic year to conduct summer workshops that will help us explore emerging relationships with other programs internationally. Or we can use distance learning technologies to integrate certain aspects of existing courses among several institutions, for instance by creating international teams of students to pursue specific projects over the web. (The authors will be able to report on just such a workshop and international web-based "collaboratory" which will take place this summer between our institution and several partners in European institutions.) If we are to develop a truly international environment for the study of technical communication, we must both seek out such global collaborative opportunities and look for the means to evolve them into durable, flexible programmatic structures.

The Development of Graduate Concentrations And International Partnerships in Technical and Professional Communication Programs

Herb Smith Southern Polytechnic State University

Concentrations and international partnerships can do a great deal to enrich both graduate and undergraduate programs, but they pose administrative problems that should be carefully examined before the concentration or partnership is formalized. This position paper examines first the evolution of a graphics concentration in Southern Polytechnic State University's graduate program, a concentration we have developed during the last year as we move from a quarter to a semester system. The concentration is a major departure from the broader tracks we offered in the past whereby students could pick freely from a range of electives. Our graphics option includes the following courses:

Introduction to Multimedia
Applied Multimedia
Foundations of Graphics
Applied Graphics
Video Scripting

Because the concentration demands that we offer these courses on a regular basis, the administration of the concentration poses problems that affect the entire program.

Likewise, international partnerships can enrich technical and professional communication programs by offering an experience to students and faculty alike, an experience that traditional coursework can not deliver. Problems, however, do exist in setting up the partnership, in designing the course of study, and in agreeing on a grading system. The international partnership between Southern Polytechnic State University and various fachhochschules in Germany will serve as a model. The European Transfer Credit System offers some very useful guidelines for implementing such international partnerships.

The move to concentrations within the curriculum and to international partnerships requires some administrative planning and adjustments.

Grazing Through the Food Chain: Symbiosis in the Land of Science Writing

Ann S. Jennings University of Houston - Downtown

Stakeholders for technical writing programs exist inside and outside of the university. Sometimes a multi-party project can be staged that blends the strengths of several of these stakeholders.

One such ecologically rich arrangement is that of a technical writing program, a university science or engineering department, local science and engineering firms, an area high school science projects fair, and the nearest chapter of the Society for Technical Communication. A project undertaken in common by these stakeholders encourages them to complement each other's strengths and to increase their mutual understanding and support of each other's work.

The Society for Technical Communication, for instance, sponsors the annual International Student Technical Writing Competition. For the competition to thrive, it must have essays. Local high school science fairs have students who have created projects and experiments about which they can write essays. The university technical writing program can organize an essay contest in cooperation with the local STC chapter, supply judges to evaluate the essays, and submit the winning entries to the STC's international competition. The university's science and engineering departments can also supply judges, as can science and engineering firms.

The result: the technical writing program positions itself as a leader in its field, cements its collaborative relationships with other university departments and the STC, makes contacts of value to its job-seeking graduates, and helps raise the level of technical writing skills of students entering the university.

A university writing program and science or engineering department, STC, and local firms join to sponsor a student writing contest, with benefits to all stakeholders.

The Science Engineering Fair of Houston is a thriving example of such a symbiotic arrangement. Now in its thirty-ninth year, the fair is sponsored by the University of Houston-Downtown's Natural Sciences Department, the Houston Museum of Natural Science, and the Engineering, Science and Technology Council of Houston. A number of local corporations and billion dollar international chemical and engineering companies support the fair, as do numerous school districts, private schools, technology companies, banks, professional societies, and the U.S. military. STC-Houston sponsors the fair's essay contest, which is organized and administered by a representative of the university's Professional Writing Program.

In 1998 the essay competition received 64 entries. Essay judges came from the Professional Writing Program, the STC, the Natural Sciences Department, and Exxon Chemical Company. The winners of the local essay contest received cash and gift certificates from STC. The entries of the top three senior division winners were forwarded to the STC's international competition. One student from Houston won an certificate of Excellence (second prize) and two students received certificates of Honorable Mention.

Similar opportunities exist in many communities. Technical writing programs can profit from identifying and pursuing such activities.

The "Greening" of Technical Communication: The Environment as a Programmatic Stakeholder

Henrietta Nickels Shirk University of North Texas

In our focus on the more traditional disciplinary, administrative, and professional stakeholders in technical communication programs, we are often not able to identify clearly what Marshall McLuhan called "break boundaries." Break boundaries are moments "at which the system suddenly changes into another or passes some point of no return in its dynamic processes" (*Understanding Media: The Extensions of Man*, 1964). One such "break boundary" for technical communication programs is the emergence of the environment as a programmatic stakeholder.

The recent proliferation of interest in environmental writing within technical communication programs and within the field's professional publications is evidence of this emerging trend. Environmental issues and concerns are now included among the sessions at the annual Conference on College Composition and Communication, as well as among the presentations at the annual Conference of the Society for Technical Communication. A recent special issue on environmental rhetoric by ATTW's *The Technical Communication Quarterly* (Winter 1997), and the fact that the Environmental, Safety, and Health Special Interest Group of the STC is the most rapidly growing SIG of that organization both provide additional evidence for an increased interest in the environment as a thematic focus for technical communication programs. Likewise, the publication of books like *Ecospeak: Rhetoric and Environmental Politics in America* (Killingsworth and Palmer, 1992) and *Green Culture: Environmental Rhetoric in Contemporary America* (Herndl and Brown, 1996) further supports the notion of a programmatic "break boundary" in the process of emerging.

Interest in the environment can be viewed as a programmatic break boundary in our developing field. It represents the "culture-bearing" qualities of technical communication.

As the terms "ecopsychology" and "ecocriticism" are rapidly becoming significant approaches in other disciplines, some technical communication programs are increasingly including "eco-technical communication" in their curricula. I suggest that this emerging trend can be viewed as a programmatic break boundary in our developing field, and that it represents a meaningful aspect of the "culture-bearing" qualities of technical communication. To understand this relatively recent occurrence, I suggest that we analyze a tripartite model of environmental writing—one that includes overlapping aspects of the following:

Biomedical Writing
Nature Writing
Environmental Writing

It is at the interstices of these three areas, and from within both scientific and non-scientific perspectives, that the significance of this new programmatic trend may be evaluated.

Finally, I recommend that the environmentalist concept of "ecology" offers a useful schema for considering additional emerging programmatic break boundaries. As the study of how living things interact with each other and with their physical environment, ecology provides a conceptual paradigm for further development and evaluation of the interdisciplinary aspects of technical communication programs.

Appendixes

Program

Distinguished Service Awards

Minutes

Business Meeting

Executive Committee Meetings

Treasurer's Report

Conference Participants

Members

Program

Thursday, 15 October 1998

6:00 Reception and light buffet

8:00 Welcome

Nancy M. Targett, Associate Dean, College of Marine Studies, University of Delaware

Keynote address

R. John Brockmann. What Can Clio, the Muse of History, Offer to CPTSC?

Friday, 16 October 1998

7:00 - 8:30 Coffee and Continental Breakfast

8:30 Welcomes and Overview of the Day

9:00 Opening Session

Neil Kleinman, Nancy Kaplan, and Ed Gold
Mixing Oil and Water: Integrating Writing, Design and the New Technology

10:30-11:20

A. The Ecology of Technology: Learning about Distance Learning

Jim Henry, Gwyn McVay, and Ginger Montecino. A 7:1 Student/Teacher Ratio at a State University: Virtual Environments Make it Possible...

Bill Macgregor. Distance Learning, Service Learning, and Programs in Technical & Scientific Communication: Finding Common Ground for Program Growth

Nancy M. O'Rourke. Offering Online Graduate Programs in Technical Communication: An Opportunity to Place Technical Communication at the Center of Outreach Programs

B. Environmental Shifts: Crossing University Boundaries

Marion Barchilon. Using Technical Communication Faculty to Expand Technological Instruction Across Campus

Rebecca Burnett. Boundary Breakers: Cross-Department/Cross-College Program Development

Sook Fun Lim. Challenges in Teaching Communication Skills Within an Engineering Curriculum

Summer Smith. Toward Symbiosis between Engineering and Technical Writing

C. Evolving Perspectives Defining, Assessing, and Positioning Our Programs

Sandra W. Harner. What's in a Name? Just as Shakespeare Pondered Long Ago, Let's Revisit the Question

Ken Price. Anticipating Standardized Skills Assessment in Technical Communication Programs

Gerald J. Savage. Evangelizing for the Profession: How Can We Spread the Word about Technical Communication?

Celia Patterson. Evolution and Ethics: The Dilemma of a Small Technical Communication Program

11:30 - 12:20

A. The Ecology of Technology: Teaching with the Internet

Nancy Allen. Teaching on the Net: Are We Shooting Ourselves in the Foot?

Greg Wickliff. Getting Involved—the Web Site as a Technical Communication Program Interface

Harriet Wilkins. Reflections on Course Design: Challenges of the Web

B. Environmental Shifts: Examining Service-Learning

James M. Dubinsky. Making the "Invisible Discourse" of Service Visible

Roger Munger. Extending a Hand to Our Stakeholders: Examining the Risks of Service-Learning Courses in Technical Communication Programs

William J. Williamson. A Political Ecology of Service in Technical Communication Programs

11:30 - 12:20 **C. Evolving Perspectives: Re-Introducing our History**

Karen Schnakenberg. A Plea to Make History More a Part of Current Curriculum

Carolyn Rude. Programmatic Directions of a Social Perspective Focusing on Action

Robert R. Johnson. Out from Beneath the Underdog: Toward a History of Technical and Scientific Communication in the American Academy, 1950–2000

12:30 **Lunch**

1:45 - 2:35 **A. The Ecology of Technology: Constructing Programs**

Don Payne. Constructing Communication-Friendly Computing Environments for Our Programs

Shelby Rosiak. Evolving with Technology: Software Proficiency as a Programmatic Concern

Stuart Selber. Computer Classroom Practice in Technical Communication

B. Environmental Shifts: Working with Community Stakeholders

Lisa Daidon, Julie Dyke. Embedding Industry Documents in Technical Communication Programs

Bruce Maylath. Do We Have a Community Here? The Stakeholder Ecology of Technical Communication Programs, Related Industries, and Their Legal Departments

Pete Praetorius. The Job Search Process as a Step toward Career Affiliation

Dale Sullivan. What is Keeping Practitioners and Academics from Meeting in the Middle?

C. Evolving Perspectives: Encouraging International Outreach

Ty Herrington. A Rose is a Rose is a Rose—Or is It? Forgoing Denotation of Field-Specific Global Access Programs to Encourage Diverse University, Industry, and Government Participation

Elizabeth Pass, Mike Zerbe. Meeting the Needs of a Global Community: Technical Translation Answering the Call

Judith Ramey, Mary Coney. The Programmatic Challenges that Complicate International Collaboration

Herb Smith. The Development of Graduate Concentrations and International Partnerships in Technical and Professional Communication Programs

3:00 - 3:50 **A. Environmental Shifts: Swimming in Other Waters**

Lu Rehling. Charting an Evolutionary Path for Certificate Programs

Katherine Staples. Swimming with the Bottom Feeders: Life, Times, and Disciplinary Isolation of the Two-Year College Technical Communication Program

Mike Keene. Program Ecology, Program Diversity, Program Change

Sherry Burgus Little. The Problem with Certificate Programs

B. Evolving Perspectives: Challenging Our Environment

Ann Jennings. Grazing Through the Food Chain: Symbiosis in the Land of Science Writing

Henrietta Shirk. The "Greening" of Technical Communication: The Environment as a Programmatic Stakeholder

Evening Cash bar and banquet

Saturday, 17 October 1998

8:30 Business meeting

Afternoon Excursions and diversions, with box lunch

Trip via ferry to Cape May, New Jersey, a much celebrated Victorian spa
Birding expedition led by an ornithologist from the Academy of Natural Sciences, Philadelphia
Winery tour
Rehoboth jazz festival

Evening Dessert party, home of Jim Henry

Distinguished Service Awards 1998

Selection Criteria[1]

Persons nominated to receive the Distinguished Service Award will in general possess the following characteristics and attributes:

1. They must be members of CPTSC at the time of their nomination.
2. They should be members of long standing in CPTSC with at least seven consecutive years of membership sometime during their careers. The DSSC can recommend exceptions to this rule but only for members of extraordinary merit.
3. Nominees must have made significant long term contributions to programming in technical communication. It is expected the DSSC will consider only members who have established significant careers in technical communication programming, working both on the local and the national levels. The key question will be, Have technical communication programs been significantly affected in a positive manner by this person's career?

Honorary Distinguished Service Award

The DSSC of the Executive Committee with the advice of the DSSC may from time to time choose non-members to receive an Honorary Distinguished Service Award. Such honorary recipients should have made significant contributions to CPTSC or to programming in technical communication. This contribution could be either as a career long emphasis or as a significant special contribution.

1.Approved Austin, Texas, October 1997; Posted to the website March 1999.

1998 Recipients

Tom Pearsall

First president and one of the founders.

His early organizing work on behalf of the organization has benefited all of us, and his inspired early leadership as president of CPTSC from 1974 to 1978 was of immense importance in establishing CPTSC as the key organization for those developing programs in scientific and technical communication. The organization bears his lasting imprint.

Virginia Book

First woman president and one of the founders.

As well as serving as president 1982–1984, she helped define the ethos of the Council by welcoming new members and generously offering help and information. She had an eye for quality.

Marilyn Schauer Samuels

President for two terms (1986–1990) and a major contributor to the CPTSC and the profession's sense of itself.

She presided over a period of growth and definition of the field. Her good sense, enthusiasm, and humor were treasured by many of our members.

Minutes

Business Meeting, October 17, 1998

Executive Board Meetings, October 15 and 17, 1998

The conference participants met for the annual business meeting Saturday morning, October 17. Steve Bernhardt presided.

1. Approval of 1997 Minutes

Minutes from 1997 meeting in Austin, Texas, were read, distributed, and approved via a motion by Mary Coney and seconded by the house.

2. Announcements: Other Meetings

Stuart Selber reported on Sig Doc 99 which will be in New Orleans, and Steve Bernhardt reported on the ATTW meeting which will again be held in conjunction with CCCC in Atlanta. Calls for papers for both conferences were circulated. Karen Schriver reminded people that Sig Doc 99 will offer airfare honoraria for people who offer tutorial-style workshops there.

3. Treasurer's Report

Henrietta Shirk presented a partial treasurer's report (attached), which shows a current bank balance of $5,054.33. Some membership dues and prior year matters are not included here. Carole Yee moved we accept the report, Elizabeth Pass seconded, and it was approved.

4. Report: Website Development and Discussion List Activity

Pete Praetorius has posted proceedings and abstracts this year. We need to designate a web master or a group to do the web work.

Nancy Allen volunteered to coordinate collection of best teaching practices relevant to distance education. She will convert these to HTML and forward them to Pete to mount on the website. People should contact Nancy with such materials.

It's important to send materials to Michigan Tech in uploadable form. The graduate student supervised by Craig Waddell has only limited time for formatting and conversion duties. We should avoid duplication (ATTW site, for instance, should have links so we don't repeat their work.)

The listserv continues to have modest traffic, but is working. Stuart Selber will follow up on archives since the list is housed at Clarkson and he's no longer there.

The executive board will try to get a new membership list up on the web soon.

5. Report: Program Review

In Bill Karis's absence, Steve Bernhardt summarized the current activity regarding program review. Several schools have studies underway. Self-study materials for interested programs are on the web.

6. Report: Summit Meeting 98

Stuart Selber reports that this effort, begun in 1997 at Snowbird, Utah, has attracted several new international organizations and that the recent meeting at Anaheim continued the dialogue among the organizations identified with Technical and Scientific Communication: ATTW, CPTSC, STC, IEEE, and Sig Doc plus this year's international guests from Intecom, Australia, and the Netherlands. He suggests that even though several meta-projects that cross organizations have been identified, the summit has mostly a general vision and few concrete projects. Open dialogue across the organizations has, however, always been the goal of this meeting, and he suggests the dialogue may be its best outcome.

Karen Schriver, who also attended, reinforced the idea that substantial goodwill had been generated among organizations because of this work. Three projects she believes have merit and may produce results eventually are:

1. Centralizing information resources (re: journals, grants, scholarships etc.)

2. Improving our contact and relevance to high school programs.
3. "Right to clear language" effort—perhaps a white paper of some sort.

A general consensus emerged that CPTSC should continue to support the summit work and perhaps even take the lead on some specific project/s.

A related issue on the status of ABET accreditation was discussed. Margaret Hundleby offered to initiate informal conversations with ABET officials. Others who will help on this project are Harriet Wilkins, Linda Driskill, and Marian Barchilon.

7. Report: STC

Karen Schriver reported on current STC activities. She encouraged members to apply for grants and scholarships, to submit research articles to *Technical Communication.* She also reports that STC officials are anxious to increase academic participation in the annual conference. Members expressed dissatisfaction with the costs of that meeting despite the break recently announced for people who are speakers.

8. Old business

a. Conference Proceedings

Carolyn Rude announced that drafts for conference proceedings would be due on November 13 and that she welcomed RTF or text files with MLA documentation style.

b. Next year's meeting in Santa Fe

Carole Yee welcomed members to the 1999 conference in Santa Fe. Some plans are afoot to coordinate with the Rocky Mountain MLA which will be meeting at the same time—October 14–16, 1999. New Mexico State and New Mexico Tech will co-sponsor our conference, and perhaps Los Alamos National Laboratory will join them. A motion to meet in Santa Fe was passed by the membership.

c. Planning for the Forum 2000/Mega-Conference

Since this meeting will be in June, the board recommended that we send representatives and meet informally there with members who will be attending the conference. Deb Andrews and Bruce Maylath have been appointed to coordinate any CPTSC events there. Deb has been pursuing the idea that we use the Delaware facilities there, and it looks like this will be possible. The event will be an excellent way to increase our international emphasis and to reach out to faculty and other groups in Europe. The members agreed to support this plan.

On another international issue, the members agreed to appoint Tom Warren as CPTSC representative to Norwegian Society for Technical Information which will meet in November.

d. Sites for 2000 and 2001

Possible sites for future meetings include Menomonie, WI (with Dan Riordan and Bruce Maylath) in 2000 and James Madison (with Mike Zerbe and Elizabeth Pass) in 2001. Members from other sites expressing interest represented Carnegie Mellon, UNC Charlotte, U of Washington, and IUPUI.

9. New business

a. Membership

The Executive Board has recommended that membership be aligned with the conferences and expects to send out membership mailing in the next month or so. This change will allow people who pay annual dues at the conference to stay current for a year. Old members being asked to renew now will lose two months of membership, but we believe the change will reduce confusion. Members present approved the change.

b. Introduction of New Board Members

New board members introduced were:
Deborah Andrews, President
Carolyn Rude, Vice President
Karen Schnakenberg, Treasurer
Jennie Dautermann, Secretary
Bruce Maylath, Stuart Selber, and Pam Ecker, Members at Large
Steve Bernhardt, Immediate Past President

The outgoing board members were recognized with certificates of appreciation.

c. Distinguished Service Awards

These awards (presented at Friday's banquet) were given to Tom Pearsall, Marilyn Samuels (posthumous), and Virginia Book.

d. Thanks

Special thanks were expressed to Deb Andrews, Lili Velez and their volunteers who made this meeting so successful.

e. Invitation

Carole Yee invited the members to Santa Fe for next year's meeting.

Minutes, Executive Board

The Executive Board met Thursday, October 15, with Deb Andrews to make last minute plans for the meeting and on Saturday evening after the business meeting had taken place. Discussion continued via email.

On Thursday, the outgoing board discussed the Lewes meeting finances, which appear to be in the black thanks to contributions by University of Delaware College of Arts and Sciences, University of Delaware English Department, Allyn and Bacon, Prentice Hall, and Addison Wesley/Longman.

Karen Schnakenberg will look into electronic banking of some sort to expedite handling of the treasury, and the meeting costs will be closed out as soon as possible.

Special guest speakers at this meeting should be recognized: R. John Brockmann, Neil Kleinman, Nancy Kaplan, and Ed Gold. Tom Pearsall and Dan Riordan will offer comments on CPTSC at the Friday banquet. Other people and groups who assisted with the conference should also be recognized: Deborah Bosley, for serving as program chair; Rebecca Worley, for designing the program; Lili Fox-Velez and Deborah Andrews, for coordinating the conference and serving as local hosts; Jim Henry, for hosting the dessert party and providing information on the region; Chris Keirstead for helping with registrations; Pete Praetorius for posting conference information on the web.

The outgoing board voted to recommend to the business meeting that we change our membership renewal date to coincide with the conference year rather than the calendar year. That way all finances can be managed at one time and renewals this year can be used to update the mailing list as soon as possible.

On Saturday, new members of the board were given copies of the CPTSC job descriptions, and plans for next year were discussed. Bruce Maylath has agreed to serve as program chair for 1999, and Carolyn Rude will be doing the proceedings and the newsletter. The other members-at-large will assist in these projects as well.

Board members will discuss a theme for 1999 over email and at a tentative breakfast meeting on Saturday of CCCC in Atlanta. Minutes of the email conversations will not be kept, but the Secretary will summarize the activity for our archives and to provide agenda items for subsequent meetings. Because she is coordinating next year's meeting, Carole Yee will be included on the email conversations.

All possible efforts will be made to update the finances and the mailing lists. After some discussion via email, the board decided to send out a membership mailing in the summer of 1999 separate from the call for papers and announcement of the conference. These mailings will be coordinated by Deb Andrews, Karen Schnakenberg, and Jennie Dautermann. The membership list on the website will be removed since it is so inaccurate. Officers' names and contact information will appear there instead.

Steve Bernhardt will continue to shepherd the web and Stuart Selber will coordinate work on the listserv. New stationery will be produced without names of board members since we don't use it enough to reprint it whenever the officers change. Most communications will be achieved through use of email and the website.

Respectfully submitted,

Jennie Dautermann, Secretary

Treasurer's Report

Interim (and Partial) Income & Expense Information as of October 16, 1998
Report prepared for purposes of the 1998 Annual Meeting
in Lewes, Delaware by Henrietta Shirk, CPTSC Treasurer

(This report does not include the balance forward from the prior year, or an accounting of membership dues that have been paid along with the current conference's fees but have not yet transferred to the treasurer.)

INCOME:				
Interest on Checking Account (Nov. 1997–Sept. 1998)			72.65	
Membership Dues (Total Paid in 1998 = 95)			1,900.00	
		TOTAL:		**1,972.65**
EXPENSES:				
1997 Conference Expenses			6,805.18	
TC Summit Meeting at Snowbird				
Contribution to Facilitator	120.00			
Travel Reimbursement				
For Bernhardt & Bosley	500.00	TOTAL:	720.00	
Fall 1997 Newsletter				
Layout	75.00			
Printing	82.73			
Postage	62.62	TOTAL:	220.35	
Spring 1998 Newsletter				
Layout	75.00			
Printing	35.98			
Postage	42.00	TOTAL:	152.98	
1997 Proceedings				
Printing	1,613.54			
Postage & Envelopes	429.31	TOTAL:	2,042.85	
Exec. Comm. Meeting at 4Cs (4/4/98)			91.12	
Membership in International Council for Technical Communication			208.72	
TC Summit Meeting in Quebec				
Travel Reimbursement for Selber			300.00	
Deposit for 1999 Conference in Santa Fe, New Mexico			100.00	
		TOTAL:		**10,641.20**
TOTAL AMOUNT IN CPTSC CHECKING ACCOUNT AS OF 10/16/98:				**$5,054.33**

Conference Participants 1998

Jo Allen
Nancy Allen
Deborah Andrews
Marian Barchilon
Stephen Bernhardt
Arlene Bessenoff
Carolyn Boiarsky
Deborah Bosley
Susan Brekka
R. John Brockmann
Rebecca Burnett
Mary B. Coney
Marilyn M. Cooper
Lisa Casali Daidone
Jennie Dautermann
Linda Driskill
James Dubinsky
Julie Dyke
Kent A. Esbenshade
Lili Fox-Velez
Alexander Friedlander
Petra Gallert
Sandra Harner
Barbara Heifferon
Jim Henry
TyAnna K. Herrington
Rebecca Hettich
Helen E. Hodgson
Margaret Hundleby
Ann S. Jennings
Robert R. Johnson
Michael L. Keene
William Keith
Sherry Burgus Little
Eben W. Ludlow
William B. Macgregor
Gwyn McVay
Bruce Maylath
Arthur A. Molitierno
Virginia M. Montecino
Roger Munger
Bridget M. Newell
Nancy M. O'Rourke
Elizabeth R. Pass
Celia Patterson
William Donald Payne
Thomas Pearsall
Pete Praetorius
Kenneth R. Price
Judy Ramey
Louise Rehling
Dan Riordan
Shelby Rosiak
Carolyn Rude
Gerald Savage
Karen Rossi Schnakenberg
Karen A. Schriver
Stuart Selber
Jack Selzer
Kate Sheehan
Henrietta Shirk
Herb J. Smith
Summer Smith
Katherine Staples
Stephen J. Stedman
Dale L. Sullivan
Gregory Wickliff
Harriet Wilkins
William Williamson
Rebecca Worley
Carole Yee
Michael J. Zerbe

CPTSC Members 1998

Abbott, Christine
Department of English
Northern Illinois University
Dekalb, IL 60115
cbabbott@aol.com

Adams, Allan W. Jr.
Adams Translation Services
12885 Research Blvd., Suite 206
Austin, TX 78750
aadams@adamstrans.com

Alred, Jerry
University of Wisconsin - Milwaukee
Department of English
Curtin Hall, P. O. Box 413
Milwaukee, WI 53201
alred@csd.uwm.edu

Allen, Jo
East Carolina University
Department of English
Greenville, NC 27858-4353
allenb@mail.ecu.edu

Allen, Nancy
Eastern Michigan University
Department of English
Ypsilanti, MI 48197
nallen@online.emich.edu

Anderson, Paul V.
Miami University of Ohio
Department of English
Bachelor Hall
Oxford, OH 45056
anderspv@muohio.edu

Andrews, Deborah C
University of Delaware
English Department
Newark, DE 19716-2537
dandrews@udel.edu

Barchilon, Marian G.
Arizona State University (East)
Technical Communication
6001 S. Power Road
Mesa, AZ 85206
barchilon@asu.edu

Bartholomew, Barbara G.
University of Houston - Downtown
English Department
One Main Street
Houston, TX 77002
bartholomew@dt.uh.edu

Bernhardt, Stephen A.
New Mexico State University
Department of English, 3E
Las Cruces, NM 88003
sbernhar@nmsu.edu

Birchak, Beatrice Christiana
University of Houston - Downtown
College of Humanities and Social Sciences
One Main Street, Suite 1015-S
Houston, TX 77002-1001
bartholomew@dt.uh.edu

Bessenoff, Arlene
Sponsoring Development Manager
Addison Wesley Longman
1185 Avenue of the Americas
New York, NY 10036
arlene.bessenoff@awl.com

Boiarsky, Carolyn
Purdue University - Calumet
Laushe Hall, 232E
Hammond, IN 46323
Boiarsc@jorsm.com

Bonk, Robert
105 Coyne Place
Wilmington, DE 19805
rjbonk@udel.edu

Bosley, Deborah
Univ. of North Carolina - Charlotte
Department of English
Charlotte, NC 28223
dsbosley@email.uncc.edu

Brekka, Susan
Marketing Manager
Prentice Hall
1 Lake Street
Upper Saddle River, NJ 07458
Susan_Brekka@prenhall.com

Bridgeford, Tracy
Michigan Technological University
Department of Humanities
Walker 314
1400 Townsend Road
Houghton, MI 49931
tbbridge@mtu.edu

Broadhead, Glenn J.
Oklahoma State University
English Department
205 Morrill
Stillwater, OK 74078-0135
bhead@vm1.ucc.okstate.edu

Brockmann, R. John
University of Delaware
English Department
Newark, DE 19716
jbrockma@udel.edu

Brooks, Randy
Millikin University
1184 W. Main Street
Decatur, IL 62522
rbrooks@mail.millikin.edu

Burnett, Rebecca
Iowa State University
Department of English
203 Ross Hall
Ames, IA 50011-1201
rburnett@iastate.edu

Campbell, Charles P.
New Mexico Institute of Mining and Technology
Humanities Department
Socorro, NM 87801
cpc@nmt.edu

Coney, Mary B.
University of Washington
Department of Tech. Comm.
Box 352195
Seattle, WA 98195
mconey@uwtc.washington.edu

Cook, Kelli Cargile
Texas Tech University
Department of English
Lubbock, TX 79409-3091
ngack@ttacs.ttu.edu

Cooper, Marilyn M.
Michigan Technological University
Department of Humanities
1400 Townsend Drive
Houghton, MI 49931
mmcooper@mtu.edu

Cunningham, Donald H.
Auburn University
Department of English
8054 Haley Center
Auburn, AL 36849
cunnidh@mail.auburn.edu

Daidone, Lisa Casali
University of North Carolina - Charlotte
Department of English
Charlotte, NC 28223-0001
lcdaidon@email.uncc.edu

Dautermann, Jennie
Miami University (Ohio)
Department of English
303 Bachelor Hall
Oxford, OH 45056
DAUTERJP@MUOHIO.EDU

Davis, Marjorie T.
Mercer University
Department of Technical Communication
School of Engineering
Macon, GA 31207
davis_mt@mercer.edu

Day, Doug
Allyn & Bacon
1908-B Larchmont Drive
Austin, TX 78704
dougdayab@aol.com

Deming, Lynn
New Mexico Tech
Humanities Department
Socorro, NM 87801
cyee@nmt.edu

Dowdney, Donna
De Anza College
21250 Stevens Creek Blvd.
Cupertino, CA 95014
dowdney@admin.fhda.edu

Driskill, Linda
Rice University
P.O. Box 1892
Houston, TX 77251-1892
driskila@rice.edu

Dubinsky, James
Department of English
Virginia Tech
Blacksburg, VA 24061
dubinsky@vt.edu

Dyke, Julie
New Mexico State University
451 Roadrunner Parkway, Apt. 206
Las Cruces, NM 88011
julie.dyke@juno.com

Dyrud, David L.
Oregon Institute of Technology
Communications Department
Klamath Falls, OR 97601-8801
dyrudd@oit.osshe.edu

Ecker, Pamela S.
Cincinnati State Technical and Community College
3520 Central Parkway
Cincinnati, OH 45223-2690
pamecker@aol.com

Esbenshade, Kent A.
U.S. Naval Academy
Department of English
107 Maryland Avenue
Annapolis, Maryland 21402-5044

Feinberg, Susan
Illinois Institute of Technology
Humanities Department
3301 S. Dearborn
Chicago, IL 60616
feinberg@charlie.cns.iit.edu

Flinn, Tony
Eastern Washington University
Department of English, MS #25
Cheney, WA 99004
aflinn@ewu.edu

Fox-Velez, Lili
159 West Coulter Street
Philadelphia, PA 19144
l.velez@usip.edu

Friedlander, Alexander
Drexel University 9B/5044
32nd and Chestnut
Philadelphia, PA 19104
friedlac@post.drexel.edu

Gallert, Petra
Air University - Extension Course Institute
6516 Sweet Gum
Montgomery, AL 36117
gallertpu.dfens@usafa.f.mil

Geonetta, Sam C.
University of Cincinnati
Department of Humanities
2220 Victory Parkway, ML 103
Cincinnati, OH 45206
geonetsc@uc.edu

Hankins, June Chase
Southwest Texas State University
Department of English
San Marcos, TX 78666
jh20@swt.edu

Harner, Sandra W.
Cedarville College
P.O. Box 601
Cedarville, OH 45314
harners@cedarville.edu

Hart, Hillary
University of Texas at Austin
Department of Civil Engineering
ECJ 8.214
Austin, TX 78712
hart@mail.utexas.edu

Hart-Davidson, Bill
Purdue University
Department of English
405 Heavilon Hall
West Lafayette, IN 47907
billhd@purdue.edu

Heifferon, Barbara
Clemson University
Department of English
606 Strode Tower
Clemson, SC 29634-1503
bheiffe@CLEMSON.EDU

Henry, James M.
George Mason University
Department of English, MSN 3E4
4400 University Dr.
Fairfax, VA 22030-4444
jhenry@osf1.gmu.edu

Hirst, Russell
University of Tennessee
Department of English
401 McClung Tower
Knoxville, TN 37996-0430
rkh@utk.edu

Hoft, Nancy
Michigan Technological University
209 W. Douglas Ave.
Houghton, MI 49931
nhoft@world-ready.com

Herrington, TyAnna K.
Georgia Institute of Technology
School of Literature, Communication and Culture
Atlanta, GA 30332-0165
tyanna.herrington@1cc.gatech.edu

Hettich, Rebecca
Pennsylvania College of Technology
Integrated Studies/Penn State
Williamsport, PA 17701
rhettich@pct.edu

Hodgson, Helen E.
Westminster College
1328 Laird Avenue
Salt Lake City, UT 84105
h-hodgso@wcslc.edu

Hundleby, Margaret
Auburn University
Department of English
9030 Haley Center
Auburn, AL 36849
hundlma@mail.auburn.edu

Jennings, Ann S.
University of Houston - Downtown
One Main Street, Suite 1045 S.
Houston, TX 77002-1001
jennings@hal-pc.org

Johnson, Robert R.
Miami University (Ohio)
Department of English
Oxford, OH 45056
johnsonr@muohio.edu

Johnson-Eilola, Johndan
Purdue University
English Department
West Lafayette, IN 47907-1356
johndan@omni.cc.purdue.edu

Keene, Michael L.
University of Tennessee, Knoxville
Department of English
Knoxville, TN 37996-0430
mkeene@utk.edu

Keith, William
Oregon State University
Speech Communication
104 Shepard Hall
Corvallis, OR 97331-199???
keithw@vcs.orst.edu

Kennedy, George E.
Washington State University
Department of English
Pullman, WA 99164-5020

Kitalong, Karla Saari
Michigan Tech University
Department of Humanities
1400 Townsend Drive
Houghton, MI 49931
kitalong@mtu.edu

Kreppel, Maria C.
University of Cincinnati
College of Applied Science
2220 Victory Parkway
Cincinnati, OH 45206
mariakreppel@uc.edu

Kreth, Melinda
Central Michigan University
Department of English Language and Literature
Asnpach 215
Mt. Pleasant, MI 48859
kreth1ml@cmich.edu

Kynell, Teresa
Northern Michigan University
Department of English
Marquette, MI 49855
tkynell.nmu.edu

Lim, Sook Fun
Nanyang Technological University
MPE
Nanyang Avenue
Singapore 2263
Malaysia
limsf@pacific.net.sg

Lipson, Carol
Syracuse University
Writing Program, 239 HBC
Syracuse, NY 13244-1160
cslipson@syr.edu

Little, Sherry Burgus
Department of English and Comparative Literature
San Diego State University
San Diego, CA 92182-0295
slittle@mail.sdsu.edu

Lovitt, Carl R.
Clemson University
Pearce Center, 402 Strode
Clemson, SC 29634
lcarl@clemson.edu

Ludlow, Eben W.
Allyn and Bacon
1633 Broadway - 8th floor
New York, NY 10019
EludlowAB@aol.com

Macgregor, William B.
Montana Tech of the University of Montana
Department of Professional and Technical Communication
1300 W. Park Street
Butte, MT 59701
macgreg@montana.com

Maylath, Bruce
2240 Sargent Avenue
St. Paul, MN 55105-1158
maylathb@uwstout.edu

McVay, Gwyn
9822 Main Street, #391
Fairfax, VA 22031
gmcvay@osf1.gmu.edu

Miller, Carolyn
North Carolina State University
Center for Communication in Science, Technology and Management
Box 8105
Raleigh, NC 27695-8105
crm@unity.ncsu.edu

Minor, Dennis
Louisiana Tech University
English Department
Ruston, LA 71272
dminor@vm.cc.latech.edu

Mirshafiei, Mohsen
California State University Fullerton
Department of English and Comparative Literature
800 N. State College Blvd
Fullerton, CA 92364
mmirshafiei@fullerton.edu

Molitierno, Arthur A.
Wright State University, Lake Campus
7600 State Route 703
Celina, OH 45822-2952
amolitie@wright.edu

Montecino, Virginia M.
George Mason University
New Century College MSN 5D3
213 Johnson Center
Fairfax, VA 22030-4444
montecin@gmu.edu

Morgan, David H.
P. O. Box 687
Civic Square
ACT 2608
Australia

Morgan, Margaret P.
Univ. of North Carolina - Charlotte
Department of English
Charlotte, NC 28223-0001
mpmorgan@email.uncc.edu

Munger, Roger
University of Arkansas at Little Rock
Department of Rhetoric and Writing
2801 S. University Avenue
Little Rock, AR 72204-1099
rhmunger@ualr.edu

Newell, Bridget M.
Westminster College of Salt Lake City
1840 South 1300 East
417 Foster Hall
Salt Lake City, Utah 84105
bnewell@wcslc.edu

O'Rourke, Nancy M.
Department of English
Utah State University
Logan, UT 84322-3200
norourke@cc.usu.edu

Pass, Elizabeth R.
James Madison University
Institute of Technical and Scientific Communication
MSC 1803/Keezell B-6
Harrisonburg, VA 22807
passer@jmu.edu

Patterson, Celia
Pittsburg State University
English Department
Pittsburg, KS 66762
cpatters@pittstate.edu

Payne, William Donald
Iowa State University
English Department
203 Ross Hall
Ames, IA 50011-1201
donpayne@iastate.edu

Pearsall, Thomas
University of Minnesota, Emeritus
651 Landings Way
Savannah, GA 31411
TPearsall@aol.com

Pfeiffer, William S.
Southern Polytechnic State Univ.
Department of Humanities and
Technical Communication
1100 S. Marietta Pkwy.
Marietta, GA 30060
pfeiffer@spsu.edu

Philbin, Alice
James Madison University
Institute of Technical and Scientific
Communication
MSC 1803/Keezell B-2
Harrisonburg, VA 22807
philbiai@jmu.edu

Pickett, Nell Ann
Hinds Community College
Box 1266 HCC
Raymond, MS 39154-9799
picketthcc@ao1.com

Porter, James E.
Purdue University
Department of English
Heavilon Hall
West Lafayette, IN 47906
jporter@omni.cc.purdue.edu

Pixley, Jennifer
University of Maine
Department of English
304 Neville Hall
Orono, ME 04469
jennifer_pixley@umit.maine.edu

Praetorius, Pete
Michigan Tech University
444 White Street
Hancock, MI 49930
pwpraeto@mtu.edu

Price, Kenneth R.
Southwest Missouri State University
Department of English
901 South National Avenue
Springfield, MO 65804-0095
krp626F@mail.smsu.edu

Rainey, Kenneth R.
Southern Polytechnic State Univ.
Department of Humanities and
Technical Communication
1100 S. Marietta Pkwy.
Marietta, GA 30064
krainey@spsu.edu

Ramey, Judy
University of Washington
Dept. of Technical Communication
Box 352195
Seattle, WA 98195
jramey@u.washington.edu

Reep, Diana
University of Akron
Department of English
Akron, OH 44325-1906
Dreep@uakron.edu

Rehling, Louise
San Francisco State University
Technical and Professional Writing
Program
1600 Holloway Avenue
San Francisco, CA 94132
rehlingL@SFSU.EDU

Riordan, Dan
University of Wisconsin - Stout
1215 Wilson Avenue
Menomonie, WI 54751
riordand@uwstout.edu

Rosiak, Shelby
Southwest Missouri State University
English Department
901 South National
Springfield, MO 65804
srosiak@karmak.com

Rude, Carolyn
Texas Tech University
Department of English
Lubbock, TX 79409-3091
rude@ttu.edu

Samson, Donald
Radford University
English Department - 6935
Radford, VA 24142
dsamson@runet.edu

Samuelson, Dave
California State Univ. - Long Beach
Department of English
1250 Bellflower Blvd.
Long Beach, CA 98040-2403
dnsmlsn@csulb.edu

Savage, Gerald
Illinois State University
Department of English
Campus Box 4240
Normal, IL 61790-4240
gjsavag@rs6000.cmp.ilstu.edu

Schnakenberg, Karen Rossi
Carnegie Mellon University
Department of English
5000 Forbes Avenue
Pittsburgh, PA 15213
krs@andrew.cmu.edu

Schriver, Karen A.
KSA, Document Design and
Research
33 Potomac Street
Oakmont, PA 15139
ks0e+@andrew.cmu.edu

Selber, Stuart
Penn State University
Department of English
University Park, PA 16802
selber@psu.edu

Selfe, Cynthia L.
Michigan Technological University
Humanities Department
1400 Townsend Drive
Houghton, MI 49930
cyselfe@mtu.edu

Selzer, Jack
Penn State University
Department of English
Burrowes Building
University Park, PA16802
jls25@psu.edu

Sheehan, Kate
Allyn & Bacon Publishers
160 Gould Street
Needham Heights, MA 02494
KSheehanAB@aol.com

Shirk, Henrietta Nickels
Department of English-Tech. Com.
University of North Texas
P.O. Box 8503
Denton, TX 76203
hnshirk@twlab.unt.edu

Smart, Graham
Purdue University
English Department
West Lafayette, IN 47907-1356
gsmart@omni.cc.purdue.edu

Smith, Elizabeth Overman
Auburn University
9030 Haley Center
Auburn, AL 36849-5203
smitheo@mail.auburn.edu

Smith, Herb J.
Southern Polytechnic State Univ.
Department of Humanities and Technical Communication
1100 S. Marietta Pkwy.
Marietta, GA 30064
hsmith@spsu.edu

Smith, Summer
Penn State University
110 E. Foster Avenue #310
State College, PA 16801
SLS15@psu.edu

Stalls, Doug
Central Carolina Community College
1105 Kelly Drive
Sanford, NC 27330
dstalls@gw.ccarolina.cc.nc.us

Staples, Katherine
Austin Community College-Northridge
508 Park Blvd.
Austin, TX 78751
kstaples@bga.com

Stedman, Stephen J.
Tennessee Tech University
Department of English
Box 5053
Cookeville, TN 38505
sstedman@TNTECH.EDU

Sullivan, Dale L.
Michigan Technological University
Humanities Department
1400 Townsend Drive
Houghton, MI 49931
dsulliva@mtu.edu

Sutliff, Kris
Southwest Missouri State University
English Department
901 S. National
Springfield, MO 65804
kss172f@wpgate.smsu.edu

Tovey, Janice
East Carolina University
Department of English
Greenville, NC 27858
toveyj@mail.ecu.edu

Turpin, Elizabeth R.
Ferris State University
Dept. of Languages and Literature
A-C 101
Big Rapids, MI 49307
eturpin@art01.ferris.edu

Warren, Thomas L.
Oklahoma State University
English Department, Morrill 205
Stillwater, OK 74078-4069
twarren@vm1.ucc.okstate.edu

Whitburn, Merrill
Rensselaer Polytechnic Institute
Department of Language, Literature, and Communication
Troy, NY 12180-3590
11 North Hill Road
whitbm@rpi.edu

Wickliff, Gregory
Department of English
Univ. of North Carolina - Charlotte
Charlotte, NC 28223-0001
gawickli@email.uncc.edu

Wilkins, Harriet
Indiana University/Purdue University - Indianapolis
School of Engineering and Technology
799 West Michigan Street
Indianapolis, Indiana 46202-5160
wilkins@engr.iupui.edu

Williamson, William
310 West Houghton Avenue
Houghton, MI 49931
wjwillia@mtu.edu

Worley, Rebecca
University of Delaware
English Department
Business and Technical Writing
Newark, DE 19716
rworley@udel.edu

Yee, Carole
New Mexico Tech
Humanities Department
Socorro, NM 87801
cyee@nmt.edu

Zappen, James P.
Rensselaer Polytechnic Institute
Department of Language, Literature, and Communication
Troy, NY 12180-3590
zappenj@rpi.edu

Zerbe, Michael J
James Madison University
Institute of Technical and Scientific Communication
MSC 1803
Harrisonburg, VA 22807
zerbemj@jmu.edu

Zimmerman, Donald E.
Colorado State University
Center for Research on Writing and Communication Technology
C-225 Clark Building
Colorado State University
Fort Collins, CO 80523-1785
dzimmerman@vines.colostate.edu

Reflections on the Council

By Virginia Book, recipient of a Distinguished Service Award, October 1998

I wish I could be with you to thank you personally for this recognition. It's wonderful to be remembered, especially on this 25th anniversary of the founding of CPTSC.

Any anniversary triggers memories, and this one conjures up my own personal hurrah's nest of places, people, and images. But overriding those I realized, in retrospect, that what I most appreciate about CPTSC are those qualities that make it unique among professional organizations: its clear purpose, its communal generosity, and its inclusiveness.

From the beginning, its purpose was clear: to find ways to initiate, strengthen and ensure quality programs in technical communication. It is no accident it is called a *Council*—an assembly of persons called together for consultation, deliberation and discussion. The protocol for CPTSC has always been to explore, develop, innovate, experiment, discuss and support—not for individual aggrandizement, but for the express purpose of helping colleagues.

This communal generosity is the basis, I believe, for the camaraderie that develops among members of CPTSC. How can you not appreciate and respect colleagues who offer information, suggestions and support without hesitation. Surely this is a unique attribute.

And the support is inclusive. It doesn't matter whether a program is service oriented, or leads to a certificate or degree, whether it is offered at an undergraduate or graduate level, or whether the school is large or small. The commitment is to establish quality programs wherever they exist.

The vision for organizing a council that could be responsive to community and corporate needs while maintaining scholarly integrity belongs to its founder, of course—Tom Pearsall. He had the vision; all of you are helping sustain it.

Being a part of CPTSC from its inception has been an important part of my professional experience, and I'm very pleased I had the opportunity to work with Tom and so many others in the organization. I have good memories. Thank you again for this honor, which I deeply appreciate, and for including me in your celebration tonight.

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Signature:

Position:	Vice President, Council for Programs in Technical and Scientific Communication
Printed Name:	Carolyn Rude
Organization:	Texas Tech University
Address:	Department of English, Lubbock, TX 79409-3091
Telephone Number:	806-742-2517
Date:	March 16, 1999

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